

NASA SP-7039(19)

Section 2

Indexes



(NASA-SP-7039(19)-Sec-2) NASA PATENT N82-11982
ABSTRACTS BIBLIOGRAPHY: A CONTINUING
BIBLIOGRAPHY, SECTION 2, INDEXES.
SUPPLEMENT 19 (National Aeronautics and
Space Administration) 684 p HC A99/MF A01 00/82 01301
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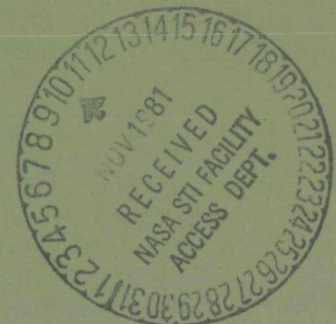
NASA

PATENT ABSTRACTS BIBLIOGRAPHY

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

JULY 1981



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ACCESSION NUMBER RANGES

<i>Bibliography Number</i>	<i>STAR Accession Numbers</i>
NASA SP-7039(04)	N69-20701-N73-33931
NASA SP-7039(12)	N74-10001-N77-34042
NASA SP-7039(13)	N78-10001-N78-22018
NASA SP-7039(14)	N78-22019-N78-34034
NASA SP-7039(15)	N79-10001-N79-21993
NASA SP-7039(16)	N79-21994-N79-34158
NASA SP-7039(17)	N80-10001-N80-22254
NASA SP-7039(18)	N80-22255-N80-34339
NASA SP-7039(19)	N81-10001-N81-21997

NASA SP-7039(19)
Section 2
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NASA

PATENT
ABSTRACTS
BIBLIOGRAPHY

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

Indexes for the annotated references to NASA-owned inventions covered by U.S. patents and applications for patent that were announced in *Scientific and Technical Aerospace Reports (STAR)* between May 1969 and July 1981. This issue supersedes all previous Index Sections.



Scientific and Technical Information Branch

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JULY 1981

Washington, D.C.

This supplement is available as NTISUB/111/093 from the National Technical Information Service (NTIS), Springfield, Virginia 22161 at the price of \$12.50 domestic; \$25.50 foreign for standing orders. Please note: Standing orders are subscriptions which do not terminate at the end of a year, as do regular subscriptions, but continue indefinitely unless specifically terminated by the subscriber.

INTRODUCTION

Several thousand inventions result each year from the aeronautical and space research supported by the National Aeronautics and Space Administration. The inventions having important use in government programs or significant commercial potential are usually patented by NASA. These inventions cover practically all fields of technology and include many that have useful and valuable commercial application.

NASA inventions best serve the interests of the United States when their benefits are available to the public. In many instances, the granting of nonexclusive or exclusive licenses for the practice of these inventions may assist in the accomplishment of this objective. This bibliography is published as a service to companies, firms, and individuals seeking new, licensable products for the commercial market.

The *NASA Patent Abstracts Bibliography (NASA PAB)* is a semiannual NASA publication containing comprehensive abstracts and indexes of NASA-owned inventions covered by U.S. patents and applications for patent. The citations included in *NASA PAB* were originally published in NASA's *Scientific and Technical Aerospace Reports (STAR)* and cover *STAR* announcements made since May 1969.

For the convenience of the user, each issue of *NASA PAB* has a separately bound Abstract Section (Section 1) and Index Section (Section 2). Although each Abstract Section covers only the indicated six-month period, the Index Section is cumulative covering all NASA-owned inventions announced in *STAR* since May 1969. Thus a complete set of *NASA PAB* would consist of the Abstract Sections of Issue 04 (January 1974) and Issue 12 (January 1978) and the Abstract Section for all subsequent issues and the Index Section for the most recent issue.

The 130 citations published in this issue of the Abstract Section cover the period January 1981 through July 1981. The Index Section references approximately 4000 citations covering the period May 1969 through July 1981.

ABSTRACT SECTION (SECTION 1)

This *PAB* issue incorporates the 1975 *STAR* category revisions which include 10 major subdivisions divided into 74 specific categories and one general category/division. (See Table of Contents for the scope note of each category under which are grouped appropriate NASA inventions.) This new scheme was devised in lieu of the 34 category divisions which were utilized in *PAB* supplements (01) through (06) covering *STAR* abstracts from May 1969 through January 1974. Each entry in the Abstract Section consists of a *STAR* citation accompanied by an abstract and a key illustration taken from the patent or application for patent drawing. Entries are arranged in subject category in order of the ascending NASA Accession Number originally assigned in *STAR* to the invention. The range of NASA Accession Numbers within each issue is printed on the inside front cover.

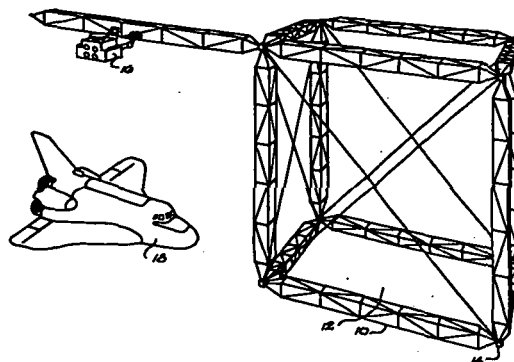
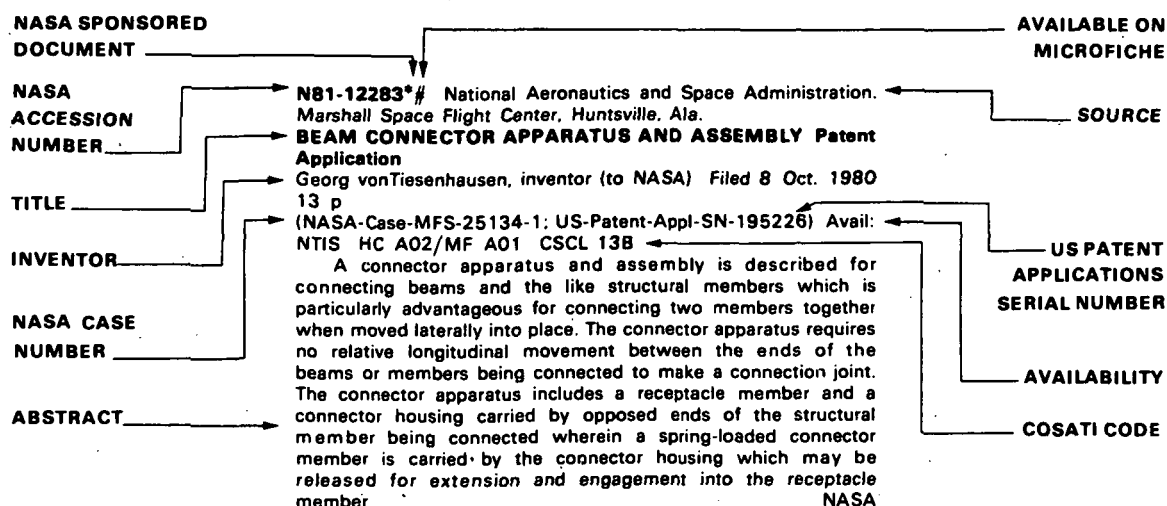
Abstract Citation Data Elements: Each of the abstract citations has several data elements useful for identification and indexing purposes, as follows:

NASA Accession Number
NASA Case Number
Inventor's Name

Title of Invention
 U.S. Patent Application Serial Number
 U.S. Patent Number (for issued patents only)
 U.S. Patent Office Classification Number(s)
 (for issued patents only)

These data elements in the citation of the abstract as depicted in the Typical Citation and Abstract reproduced below and are also used in the several indexes.

TYPICAL CITATION AND ABSTRACT



KEY ILLUSTRATION

INDEX SECTION (SECTION 2)

The Index Section is divided into five indexes which are cross-indexed and are useful in locating a single invention or groups of inventions.

Each of the five indexes utilizes basic data elements: (1) Subject Category Number, (2) NASA Accession Number, and (3) NASA Case Number, in addition to other specific index terms.

Subject Index: Lists all inventions according to appropriate alphabetized technical term and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Inventor Index: Lists all inventions according to alphabetized names of inventors and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Source Index: Lists all inventions according to alphabetized source of invention (i.e., name of contractor or government installation where invention was made) and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Number Index: Lists inventions in order of ascending (1) NASA Case Number, (2) U.S. Patent Application Serial Number, (3) U.S. Patent Classification Number, and (4) U.S. Patent Number and indicates the related Subject Category Number and the NASA Accession Number.

Accession Number Index: Lists all inventions in order of ascending NASA Accession Number and indicates the related Subject Category Number, the NASA Case Number, the U.S. Patent Application Serial Number, the U.S. Patent Classification Number, and the U.S. Patent Number.

HOW TO USE THIS PUBLICATION TO IDENTIFY NASA INVENTIONS

To identify one or more NASA inventions within a specific technical field or subject, several techniques are possible when using the flexibility incorporated into the *NASA PAB*.

(1) *Using Subject Category:* To identify all NASA inventions in any one of the subject categories in this issue of *NASA PAB*, select the desired Subject Category in the Abstract Section (Section 1) and find the inventions abstracted thereunder.

(2) *Using Subject Index:* To identify all NASA inventions listed under a desired technical subject index term, (A) turn to the cumulative Subject Index in the Index Section and find the invention(s) listed under the desired technical subject term. (B) Note the indicated Accession Number and the Subject Category Number. (C) Using the indicated Accession Number, turn to the inside front cover of the Index Section to determine which issue of the Abstract Section includes the Accession Number desired. (D) To find the abstract of the particular invention in the issue of the Abstract Section selected, (i) use the Subject Category Number to locate the Subject Category and (ii) use the Accession Number to locate the desired invention within the Subject Category listing.

(3) *Using Patent Classification Index:* To identify all inventions covered by issued NASA patents (does not include applications for patent) within a desired Patent Classification, (A) turn to the Patent Classification Number in the Number Index of Section 2 and find the associated inventions(s), and (B) follow the instructions outlined in (2)(B), and (D) above.

PUBLIC AVAILABILITY OF COPIES OF PATENTS AND PATENT APPLICATIONS

Copies of U.S. patents may be purchased directly from the U.S. Patent and Trademark Office, Washington, D.C. 20231, for fifty cents a copy. When ordering patents, the U.S. Patent Number should be used, and payment must be remitted in advance, preferably by money order or check payable to the Commissioner of Patents and Trademarks. Prepaid purchase coupons for ordering are also available from the Patent and Trademark Office.

NASA *patent application specifications* are sold in paper copy by the National Technical Information Service at price code A02 (\$5.00 domestic; \$10.00 foreign). Microfiche are sold at price code A01 (\$3.50 domestic; \$7.00 foreign). The US-Patent-Appl-SN-number should be used in ordering either paper copy or microfiche from NTIS.

LICENSES FOR COMMERCIAL USE: INQUIRIES AND APPLICATIONS FOR LICENSE

NASA inventions, abstracted in *NASA PAB*, are available for nonexclusive or exclusive licensing in accordance with the NASA Patent Licensing Regulations. It is significant that all licenses for NASA inventions shall be by express written instruments and that no license will be granted or implied in a NASA invention except as provided in the NASA Patent Licensing Regulations.

Inquiries concerning the NASA Patent Licensing Program or the availability of licenses for the commercial use of NASA-owned inventions covered by U.S. patents or pending applications for patent should be forwarded to the NASA Patent Counsel of the NASA installation having cognizance of the specific invention, or the Assistant General Counsel for Patent Matters, Code GP-4, National Aeronautics and Space Administration, Washington, D.C. 20546. Inquiries should refer to the NASA Case Number, the Title of the Invention, and the U.S. Patent Number or the U.S. Application Serial Number assigned to the invention as shown in *NASA PAB*.

The NASA Patent Counsel having cognizance of the invention is determined by the first three letters or prefix of the NASA Case Number assigned to the invention. The addresses of NASA Patent Counsels are listed alongside the NASA Case Number prefix letters in the following table. Formal application of license must be submitted on the NASA Form, Application for NASA Patent License, which is available upon request from any NASA Patent Counsel.

**NASA Case
Number
Prefix Letters**

**Address of Cognizant
NASA Patent Counsel**

ARC-xxxxx
XAR-xxxxx

Ames Research Center
Mail Code: 200-11A
Moffett Field, California 94035
Telephone: (415)965-5104

ERC-xxxxx
XER-xxxxx
HQN-xxxxx
XHQ-xxxxx

NASA Headquarters
Mail Code: GP-4
Washington, D.C. 20546
Telephone: (202)755-3954

GSC-xxxxx
XGS-xxxxx

Goddard Space Flight Center
Mail Code: 204
Greenbelt, Maryland 20771
Telephone: (301)344-7351

KSC-xxxxx
XKS-xxxxx

John F. Kennedy Space Center
Mail Code: AA-PAT
Kennedy Space Center, Florida 32899
Telephone: (305)867-2544

LAR-xxxxx
XLA-xxxxx

Langley Research Center
Mail Code: 456
Hampton, Virginia 23365
Telephone: (804)827-3725

LEW-xxxxx
XLE-xxxxx

Lewis Research Center
Mail Code: 500-311
21000 Brookpark Road
Cleveland, Ohio 44135
Telephone: (216)433-6346

MSC-xxxxx
XMS-xxxxx

Lyndon B. Johnson Space Center
Mail Code: AM
Houston, Texas 77058
Telephone: (713)483-4871

MFS-xxxxx
XMF-xxxxx

George C. Marshall Space Flight
Center
Mail Code: CC01
Huntsville, Alabama 35812
Telephone: (205)453-0020

NPO-xxxxx
XNP-xxxxx
FRC-xxxxx
XFR-xxxxx
WOO-xxxxx

NASA Resident Legal Office
Mail Code: 180-601
4800 Oak Grove Drive
Pasadena, California 91103
Telephone: (213)354-2700

PATENT LICENSING REGULATIONS

Title 14—AERONAUTICS AND SPACE

Chapter V—National Aeronautics and Space Administration

PART 1245—PATENTS

Subpart 2—Patent Licensing Regulations

1. Subpart 2 is revised in its entirety as follows:

Sec.	
1245.200	Scope of subpart.
1245.201	Definitions.
1245.202	Basic considerations.
1245.203	Licenses for practical application of inventions.
1245.204	Other licenses.
1245.205	Publication of NASA inventions available for license.
1245.206	Application for nonexclusive license.
1245.207	Application for exclusive license.
1245.208	Processing applications for license.
1245.209	Royalties and fees.
1245.210	Reports.
1245.211	Revocation of licenses.
1245.212	Appeals.
1245.213	Litigation.
1245.214	Address of communications.

AUTHORITY: The provisions of this Subpart 2 issued under 42 U.S.C. 2457, 2473(b)(3).

§ 1245.200 Scope of subpart.

This Subpart 2 prescribes the terms, conditions, and procedures for licensing inventions covered by U.S. patents and patent applications for which the Administrator of the National Aeronautics and Space Administration holds title on behalf of the United States.

§ 1245.201 Definitions.

For the purpose of this subpart, the following definitions apply:

(a) "Invention" means an invention covered by a U.S. patent or patent application for which the Administrator of NASA holds title on behalf of the United States and which is designated by the Administration as appropriate for the grant of license(s) in accordance with this subpart.

(b) "To practice an invention" means to make or have made, use or have used, sell or have sold, or otherwise dispose of according to law any machine, article of manufacture or composition of matter physically embodying the invention, or to use or have used the process or method comprising the invention.

(c) "Practical application" means the manufacture in the case of a composition of matter or product, the use in the case of a process, or the operation in the case of a machine, under such conditions as to establish that the invention is being utilized and that its benefits are reasonably accessible to the public.

(d) "Special invention" means any invention designated by the NASA Assistant General Counsel for Patent Matters to be subject to short-form licensing procedures. An invention may be designated as a special invention when a determination is made that:

(1) Practical application has occurred and is likely to continue for the life of

the patent and for which an exclusive license is not in force, or

(2) The public interest would be served by the expeditious granting of a nonexclusive license for practice of the invention by the public.

(e) The "Administrator" means the Administrator of the National Aeronautics and Space Administration, or his designee.

(f) "Government" means the Government of the United States of America.

(g) The "Inventions and Contributions Board" means the NASA Inventions and Contributions Board established by the Administrator of NASA within the Administration in accordance with section 305 of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457).

§ 1245.202 Basic considerations.

(a) Much of the new technology resulting from NASA sponsored research and development in aeronautical and space activities has application in other fields. NASA has special authority and responsibility under the National Aeronautics and Space Act of 1958, as amended (42 U.S.C. 2451), to provide for the widest practical dissemination and utilization of this new technology. In addition, NASA has been given unique requirements to protect the inventions resulting from NASA activities and to promulgate licensing regulations to encourage commercial use of these inventions.

(b) NASA-owned inventions will best serve the interests of the United States when they are brought to practical application in the shortest time possible. Although NASA encourages the non-exclusive licensing of its inventions to promote competition and achieve their widest possible utilization, the commercial development of certain inventions calls for a substantial capital investment which private manufacturers may be unwilling to risk under a nonexclusive license. It is the policy of NASA to seek exclusive licensees when such licenses will provide the necessary incentive to the licensee to achieve early practical application of the invention.

(c) The Administrator, in determining whether to grant an exclusive license, will evaluate all relevant information submitted by applicants and all other persons and will consider the necessity for further technical and market development of the invention, the capabilities of prospective licensees, their proposed plans to undertake the required investment and development, the impact on competitors, and the benefits of the license to the Government and to the public. Preference for exclusive license shall be given to U.S. citizens or companies who intend to manufacture or use, in the case of a process, the invention in the United States of America, its territories and possessions. Consideration may also be given to assisting small businesses and minority business enterprises, as well as economically depressed, low income and labor surplus areas.

(d) All licenses for inventions shall

be by express written instruments. No license shall be granted either expressly or by implication, for a NASA invention except as provided for in §§ 1245.203 and 1245.204 and in any existing or future treaty or agreement between the United States and any foreign government.

(e) Licenses for inventions covered by NASA-owned foreign patents and patent applications shall be granted in accordance with the NASA Foreign Patent Licensing Regulations (§ 1245.4).

§ 1245.203 Licenses for practical application of inventions.

(a) *General.* As an incentive to encourage practical application of inventions, licenses will be granted to responsible applicants according to the circumstances and conditions set forth in this section.

(b) *Nonexclusive licenses.* (1) Each invention will be made available to responsible applicants for nonexclusive, revocable licensing in accordance with § 1245.206, consistent with the provisions of any existing exclusive license.

(2) The duration of the license shall be for a period as specified in the license.

(3) The license shall require the licensee to achieve the practical application of the invention and to then practice the invention for the duration of the license.

(4) The license may be granted for all or less than all fields of use of the invention and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(5) The license shall extend to the subsidiaries and affiliates of the licensee and shall be nonassignable without approval of the Administrator, NASA, except to the successor of that part of the licensee's business to which the invention pertains.

(c) *Short-form nonexclusive licenses.* A nonexclusive, revocable license for a special invention, as defined in § 1245.201

(d), shall be granted upon written request, to any applicant by the Patent Counsel of the NASA installation having cognizance of the invention.

(d) *Exclusive licenses.* (1) A limited exclusive license may be granted on an invention available for such licensing provided that:

(i) The Administrator has determined that: (a) The invention has not been brought to practical application by a nonexclusive licensee in the fields of use or in the geographical locations covered by the application for the exclusive license, (b) practical application of the invention in the fields of use or geographical locations covered by the application for the exclusive license is not likely to be achieved expeditiously by the further funding of the invention by the Government or under a nonexclusive license requested by any applicant pursuant to these regulations, and (c) the exclusive license will provide the necessary incentive to the licensee to achieve the practical application of the invention; and

(ii) Either a notice pursuant to

PATENT LICENSING REGULATIONS

§ 1245.205 listing the invention as available for licensing has been published in the FEDERAL REGISTER for at least 9 months; or a patent covering the invention has been issued for at least 6 months. However, a limited exclusive license may be granted prior to the periods specified above if the Administrator determines that the public interest will best be served by the earlier grant of an exclusive license.

(2) The license may be granted for all or less than all fields of use of the invention, and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(3) The exclusive period of the license shall be negotiated, but shall be for less than the terminal portion of the patent, and shall be related to the period necessary to provide a reasonable incentive to invest the necessary risk capital.

(4) The license shall require the licensee to practice the invention within a period specified in the license and then to achieve practical application of the invention.

(5) The license shall require the licensee to expend a specified minimum sum of money and/or to take other specified actions, within indicated period(s) after the effective date of the license, in an effort to achieve practical application of the invention.

(6) The license shall be subject to at least an irrevocable royalty-free right of the Government of the United States to practice and have practiced the invention throughout the world by or on behalf of the Government of the United States and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States.

(7) The license may reserve to the Administrator, NASA, under the following circumstances, the right to require the granting of a sublicense to responsible applicant(s) on terms that are considered reasonable by the Administrator, taking into consideration the current royalty rates under similar patents and other pertinent facts: (i) To the extent that the invention is required for public use by Government regulation, or (ii) as may be necessary to fulfill health or safety needs, or (iii) for other purposes stipulated in the license.

(8) The license shall be nontransferable except to the successor of that part of the licensee's business to which the invention pertains.

(9) Subject to the approval of the Administrator, the licensee may grant sublicenses under the license. Each sublicense granted by an exclusive licensee shall make reference to and shall provide that the sublicense is subject to the terms of the exclusive license including the rights retained by the Government under the exclusive license. A copy of each sublicense shall be furnished to the Administrator.

(10) The license may be subject to such other reservations as may be in the public interest.

§ 1245.204 Other licenses.

(a) *License to contractor.* There is

hereby granted to the contractor reporting an invention made in the performance of work under a contract of NASA in the manner specified in section 305(a) (1) or (2) of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457(a) (1) or (2)), a revocable, nonexclusive, royalty-free license for the practice of such invention, together with the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. Such license and right is nontransferable except to the successor of that part of the contractor's business to which the invention pertains.

(b) *Miscellaneous licenses.* Subject to any outstanding licenses, nothing in this subpart 2 shall preclude the Administrator from granting other licenses for inventions, when he determines that do so would provide for an equitable distribution of rights. The following exemplify circumstances wherein such licenses may be granted:

(1) In consideration of the settlement of an interference;

(2) In consideration of a release of a claim of infringement; or

(3) In exchange for or as part of the consideration for a license under adversely held patent(s).

§ 1245.205 Publication of NASA inventions available for license.

(a) A notice will be periodically published in the FEDERAL REGISTER listing inventions available for licensing. Abstracts of the inventions will also be published in the NASA Scientific and Technical Aerospace Reports (STAR) and other NASA publications.

(b) Copies of pending patent applications for inventions abstracted in STAR may be purchased from the National Technical Information Service, Springfield, Va. 22151.

§ 1245.206 Application for nonexclusive license.

(a) *Submission of application.* An application for nonexclusive license under § 1245.203(b) or a short-form nonexclusive license for special inventions under § 1245.203(c) shall be addressed to the NASA Patent Counsel of the NASA installation having cognizance over the NASA invention for which a license is desired or to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for nonexclusive license.* An application for nonexclusive license under § 1245.203(b) shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number of patent number, title and date, if known;

(2) Name and address of the person, company or organization applying for license and whether the applicant is a U.S. citizen or a U.S. corporation;

(3) Name and address of representative of applicant to whom correspondence should be sent;

(4) Nature and type of applicant's business;

(5) Number of employees;

(6) Purpose for which license is desired;

(7) A statement that contains the applicant's best knowledge of the extent to which the invention is being practiced by private industry and the Government;

(8) A description of applicant's capability and plan to undertake the development and marketing required to achieve the practical application of the invention, including the geographical location where the applicant plans to manufacture or use, in the case of a process, the invention; and

(9) A statement indicating the minimum term of years the applicant desires to be licensed.

(c) *Contents of an application for a short-form nonexclusive license.* An application for a short-form nonexclusive license under § 1245.203(c) for a special invention shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number or patent number, title and date, if known;

(2) Name and address of company or organization applying for license; and

(3) Name and address of representative of applicant to whom correspondence should be sent.

§ 1245.207 Application for exclusive license.

(a) *Submission of application.* An application for exclusive license under § 1245.203(d) may be submitted to NASA at any time. An application for exclusive license shall be addressed to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for exclusive license.* In addition to the requirements set forth in § 1245.206(b), the application for an exclusive license shall include:

(1) Applicant's status, if any, in any one or more of the following categories:

(i) Small business firm;

(ii) Minority business enterprise;

(iii) Location in a surplus labor area;

(iv) Location in a low-income urban area; and

(v) Location in an area designed by the Government as economically depressed.

(2) A statement indicating the time, expenditure, and other acts which the applicant considers necessary to achieve practical application of the invention, and the applicant's offer to invest that sum and to perform such acts if the license is granted;

(3) A statement whether the applicant would be willing to accept a license for all or less than all fields of use of the invention throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(4) A statement indicating the amount of royalty fees or other consideration, if any, the applicant would be willing to pay the Government for the exclusive license; and

(5) Any other facts which the applicant believes to show it to be in the interests of the United States of America for the Administrator to grant an exclusive license rather than a nonexclusive li-

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license and that such an exclusive license should be granted to the applicant.

§ 1245.208 Processing applications for license.

(a) *Initial review.* Applications for nonexclusive and exclusive licenses under §§ 1245.206 and 1245.207 will be reviewed by the Patent Counsel of the NASA Installation having cognizance for the invention and the NASA Assistant General Counsel for Patent Matters, to determine the conformity and appropriateness of the application for license and the availability of the specific invention for the license requested. The Assistant General Counsel for Patent Matters will forward all applications for license conforming to §§ 1245.206(b) and 1245.207(b) to the NASA Inventions and Contributions Board when the invention is available for consideration of the requested license. Prior to forwarding applications for exclusive licenses to the Inventions and Contributions Board, notice in writing will be given to each nonexclusive licensee for the specific invention advising of the receipt of the application for the exclusive license and providing each nonexclusive licensee with a 30-day period for submitting either evidence that practical application of the invention has occurred or is about to occur or, an application for an exclusive license for the invention.

(b) *Recommendations of Inventions and Contributions Board.* The Inventions and Contributions Board shall, in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, evaluate all applications for license forwarded by the Assistant General Counsel for Patent Matters. Based upon the facts presented to the Inventions and Contributions Board in the application and any other facts in its possession, the Inventions and Contributions Board shall recommend to the Administrator: (1) Whether a nonexclusive or exclusive license should be granted, (2) the identity of the licensee, and (3) any special terms or conditions of the license.

(c) *Determination of Administrator and grant of nonexclusive licenses.* The Administrator shall review the recommendations of the Inventions and Contributions Board and shall determine whether to grant the nonexclusive license as recommended by the Board. If the Administrator determines to grant the license, the license will be granted upon the negotiation of the appropriate terms and conditions of the Office of General Counsel.

(d) *Determination of Administrator and grant of exclusive licenses—(1) Notice.* If the Administrator determines that the best interest of the United States will be served by the granting of an exclusive license in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, a notice shall be published in the FEDERAL REGISTER announcing the intent to grant the exclusive license, the identification of the invention, special terms or conditions of the proposed license, and a statement that NASA will grant the exclusive license unless within 30 days of the publication of such notice the Inventions and Contributions Board receives in writing

any of the following together with supporting documentation:

(i) A statement from any person setting forth reasons why it would not be in the best interest of the United States to grant the proposed exclusive license; or

(ii) An application for a nonexclusive license under such invention, in accordance with § 1245.206(b), in which applicant states that he has already brought or is likely to bring the invention to practical application within a reasonable period.

The Inventions and Contributions Board shall, upon receipt of a written request within the 30 days' notice period, grant an extension of 30 days for the submission of the documents designated above.

(2) *Recommendation of Inventions and Contributions Board.* Upon the expiration of the period required by subparagraph (1) of this paragraph, the Board shall review all written responses to the notice and shall then recommend to the Administrator whether to grant the exclusive license as the Board initially recommended or whether a different form of license, if any, should instead be granted.

(3) *Grant of exclusive licenses.* The Administrator shall review the Board's recommendation and shall determine if the interest of the United States would best be served by the grant of an exclusive license as recommended by the Board. If the Administrator determines to grant the exclusive license, the license will be granted upon the negotiation of the appropriate terms and conditions by the Office of General Counsel.

§ 1245.209 Royalties and fees.

(a) Normally, a nonexclusive license for the practical application of an invention granted to a U.S. citizen or company will not require the payment of royalties; however, NASA may require other consideration.

(b) An exclusive license for an invention may require the payment of royalties, fees or other consideration when the licensing circumstances and the basic considerations in § 1245.202, considered together, indicate that it is in the public interest to do so.

§ 1245.210 Reports.

A license shall require the licensee to submit periodic reports of his efforts to work the invention. The reports shall contain information within his knowledge, or which he may acquire under normal business practice, pertaining to the commercial use that is being made of the invention and such other information which the Administrator may determine pertinent to the licensing program and which is specified in the license.

§ 1245.211 Revocation of licenses.

(a) Any license granted pursuant to § 1245.203 may be revoked, either in part or in its entirety, by the Administrator if in his opinion the licensee at any time shall fail to use adequate efforts to bring to or achieve practical application of the invention in accordance with the terms of the license, or if the licensee at any

time shall default in making any report required by the license, or shall make any false report, or shall commit any breach of any covenant or agreement therein contained, and shall fail to remedy any such default, false report, or breach within 30 days after written notice, or if the patent is deemed unenforceable either by the Attorney General or a final decision of a U.S. court.

(b) Any license granted pursuant to § 1245.204(a) may be revoked, either in part or in its entirety, by the Administrator if in his opinion such revocation is necessary to achieve the earliest practical application of the invention pursuant to an application for exclusive license submitted in accordance with § 1245.207, or the licensee at any time shall breach any covenant or agreement contained in the license, and shall fail to remedy any such breach within 30 days after written notice thereof.

(c) Before revoking any license granted pursuant to this Subpart 2 for any cause, there will be furnished to the licensee a written notice of intention to revoke the license, and the licensee will be allowed 30 days after such notice in which to appeal and request a hearing before the Inventions and Contributions Board on the question of revocation. After a hearing, the Inventions and Contributions Board shall transmit to the Administrator the record of proceedings, its findings of fact, and its recommendation whether the license should be revoked either in part or in its entirety. The Administrator shall review the recommendation of the Board and determine whether to revoke the license in part or in its entirety. Revocation of a license shall include revocation of all sublicenses which have been granted.

§ 1245.212 Appeals.

Any person desiring to file an appeal pursuant to § 1245.211(c) shall address the appeal to Chairman, Inventions and Contributions Board. Any person filing an appeal shall be afforded an opportunity to be heard before the Inventions and Contributions Board, and to offer evidence in support of his appeal. The procedures to be followed in any such matter shall be determined by the Administrator. The Board shall make findings of fact and recommendations with respect to disposition of the appeal. The decision on the appeal shall be made by the Administrator, and such decision shall be final and conclusive, except on questions of law, unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

§ 1245.213 Litigation.

An exclusive licensee shall be granted the right to sue at his own expense any party who infringes the rights set forth in his license and covered by the licensed patent. The licensee may join the Government, upon consent of the Attorney General, as a party complainant in such suit, but without expense to the Government and the licensee shall pay costs and any final judgment or decree that may be rendered against the Govern-

PATENT LICENSING REGULATIONS

ment in such suit. The Government shall also have an absolute right to intervene in any such suit at its own expense. The licensee shall be obligated to promptly furnish to the Government, upon request, copies of all pleadings and other papers filed in any such suit and of evidence adduced in proceedings relating to the licensed patent including, but not limited to, negotiations for settlement and agreements settling claims by a licensee based on the licensed patent, and all other books, documents, papers, and

records pertaining to such suit. If, as a result of any such litigation, the patent shall be declared invalid, the licensee shall have the right to surrender his license and be relieved from any further obligation thereunder.

§ 1245.214 Address of communications.

(a) Communications to the Assistant General Counsel for Patent Matters in accordance with §§ 1245.206 and 1245.207 and requests for information concerning licenses for NASA inventions should be

addressed to the Assistant General Counsel for Patent Matters, Code GP, National Aeronautics and Space Administration, Washington, D.C. 20546.

(b) Communications to the Inventions and Contributions Board in accordance with §§ 1245.208, 1245.211, and 1245.212 should be addressed to Chairman, Inventions and Contributions Board, National Aeronautics and Space Administration, Washington, D.C. 20546.

Effective date. The regulations set forth in this subpart 2 are effective April 1, 1972.

JAMES C. FLETCHER,
Administrator.

FOREIGN PATENT LICENSING REGULATIONS

Selected NASA inventions are also available for licensing in countries other than the United States in accordance with the NASA Foreign Patent Licensing Regulation (14 C.F.R. 1245.4), a copy of which is available from any NASA Patent Counsel. For abstracts of NASA-owned inventions available for licensing in countries other than the United States, see NASA SP-7038, "Significant NASA Inventions available for Licensing in Countries Other Than the United States." A copy of this NASA publication is available from NASA Headquarters, Code GP-4, Washington, D.C., 20546.

Subject Categories

(1969 – 1973)

01 Aerodynamics

Includes aerodynamics of bodies, combinations, internal flow in ducts and turbomachinery; wings, rotors, and control surfaces. For applications see: 02 Aircraft and 32 Space Vehicles. For related information see also: 12 Fluid Mechanics; and 33 Thermodynamics and Combustion.

02 Aircraft

Includes fixed-wing airplanes, helicopters, gliders, balloons, ornithopters, etc.; and specific types of complete aircraft (e.g., ground effect machines, STOL, and VTOL); flight tests; operating problems (e.g., sonic boom); safety and safety devices; economics; and stability and control. For basic research see: 01 Aerodynamics. For related information see also: 31 Space Vehicles; and 32 Structural Mechanics.

03 Auxiliary Systems

Includes fuel cells, energy conversion cells, and solar cells; auxiliary gas turbines; hydraulic, pneumatic and electrical systems; actuators; and inverters. For related information see also: 09 Electronic Equipment; 22 Nuclear Engineering; and 28 Propulsion Systems.

04 Biosciences

Includes aerospace medicine, exobiology, radiation effects on biological systems; physiological and psychological factors. For related information see also: 05 Biotechnology.

05 Biotechnology

Includes life support systems, human engineering; protective clothing and equipment; crew training and evaluation, and piloting. For related information see also: 04 Biosciences

06 Chemistry

Includes chemical analysis and identification (e.g., spectroscopy). For applications see: 17 Materials, Metallic; 18 Materials, Nonmetallic; and 27 Propellants.

07 Communications

Includes communications equipment and techniques; noise; radio and communications blackout; modulation telemetry, tracking radar and optical observation; and wave propagation. For basic research see: 23 Physics, General; and 21 Navigation.

08 Computers

Includes computer operation and programming; and data processing. For applications, see specific categories. For related information see also: 19 Mathematics.

09 Electronic Equipment

Includes electronic test equipment and maintainability; component parts, e.g., electron tubes, tunnel diodes, transistors, integrated circuitry; microminiaturization. For basic research see: 10 Electronics. For related information see also: 07 Communications and 21 Navigation.

10 Electronics

Includes circuit theory; and feedback and control theory. For applications see: 09 Electronic Equipment. For related information see specific Physics categories.

11 Facilities, Research and Support

Includes airports; lunar and planetary bases including associated vehicles; ground support systems; related logistics; simulators; test facilities (e.g., rocket engine test stands, shock tubes, and wind tunnels); test ranges; and tracking stations.

12 Fluid Mechanics

Includes boundary-layer flow; compressible flow; gas dynamics; hydrodynamics; and turbulence. For related information see also: 01 Aerodynamics; and 33 Thermodynamics and Combustion.

13 Geophysics

Includes aeronomy; upper and lower atmosphere studies; oceanography; cartography; and geodesy. For related information see also: 20 Meteorology; 29 Space Radiation; and 30 Space Sciences.

14 Instrumentation and Photography

Includes design, installation, and testing of instrumentation systems; gyroscopes; measuring instruments and gages; recorders, transducers; aerial photography; and telescopes and cameras.

15 Machine Elements and Processes

Includes bearings, seals, pumps, and other mechanical equipment; lubrication, friction, and wear; manufacturing processes and quality control; reliability; drafting; and materials fabrication, handling, and inspection.

16 Masers

Includes applications of masers and lasers. For basic research see: 26 Physics, Solid-State.

17 Materials, Metallic

Includes cermets; corrosion; physical and mechanical properties of materials; metallurgy; and applications as structural materials. For basic research see: 06 Chemistry. For related information see also: 18 Materials, Nonmetallic; and 32 Structural Mechanics.

18 Materials, Nonmetallic

Includes corrosion; physical and mechanical properties of materials (e.g., plastics); and elastomers, hydraulic fluids, etc. For basic research see: 06 Chemistry. For related information see also: 17 Materials, Metallic; 27 Propellants; and 32 Structural Mechanics.

19 Mathematics

Includes calculation methods and theory; and numerical analysis. For applications see specific categories. For related information see also: 08 Computers.

20 Meteorology

Includes climatology; weather forecasting; and visibility studies. For related information see also: 13 Geophysics; and 30 Space Sciences.

21 Navigation

Includes guidance; autopilots; star and planet tracking; inertial platforms; and air traffic control. For related information see also: 07 Communications.

22 Nuclear Engineering

Includes nuclear reactors and nuclear heat sources used for propulsion and auxiliary power. For basic research see: 24 Physics, Atomic, Molecular, and Nuclear. For related information see also: 03 Auxiliary Systems; and 28 Propulsion Systems.

23 Physics, General

Includes acoustics, cryogenics, mechanics, and optics. For astrophysics see: 30 Space Sciences. For geophysics and related information see also: 13 Geophysics, 20 Meteorology, and 29 Space Radiation.

24 Physics, Atomic, Molecular, and Nuclear

Includes atomic, molecular and nuclear physics. For applications see: 22 Nuclear Engineering. For related information see also: 29 Space Radiation.

25 Physics, Plasma

Includes magnetohydrodynamics. For applications see: 28 Propulsion Systems.

26 Physics, Solid-State

Includes semiconductor theory; and superconductivity. For applications see: 16 Masers. For related information see also: 10 Electronics.

27 Propellants

Includes fuels; igniters; and oxidizers. For basic re-

search see: 06 Chemistry; and 33 Thermodynamics and Combustion. For related information see also: 28 Propulsion Systems.

28 Propulsion Systems

Includes air breathing, electric, liquid, solid, and magnetohydrodynamic propulsion. For nuclear propulsion see: 22 Nuclear Engineering. For basic research see: 23 Physics, General; and 33 Thermodynamics and Combustion. For applications see: 31 Space Vehicles. For related information see also: 27 Propellants.

29 Space Radiation

Includes cosmic radiation; solar flares; solar radiation; and Van Allen radiation belts. For related information see also: 13 Geophysics, and 24 Physics, Atomic, Molecular, and Nuclear.

30 Space Sciences

Includes astronomy and astrophysics; cosmology; lunar and planetary flight and exploration; and theoretical analysis of orbits and trajectories. For related information see also: 11 Facilities, Research and Support; and 31 Space Vehicles.

31 Space Vehicles

Includes launch vehicles; manned space capsules; clustered and multistage rockets; satellites; sounding rockets and probes; and operating problems. For basic research see: 30 Space Sciences. For related information see also: 28 Propulsion Systems; and 32 Structural Mechanics.

32 Structural Mechanics

Includes structural element design and weight analysis; fatigue; thermal stress; impact phenomena; vibration; flutter; inflatable structures; and structural tests. For related information see also: 17 Materials, Metallic; and 18 Materials, Nonmetallic.

33 Thermodynamics and Combustion

Includes ablation, cooling, heating, heat transfer, thermal balance, and other thermal effects; and combustion theory. For related information see also: 12 Fluid Mechanics; and 27 Propellants.

34 General

Includes information of a broad nature related to industrial applications and technology, and to basic research; defense aspects; information retrieval; management; law and related legal matters; and legislative hearings and documents.

TABLE OF CONTENTS

Section 1 • Abstracts

Subject Categories (1974 -)

AERONAUTICS

Includes aeronautics (general); aerodynamics; air transportation and safety; aircraft communications and navigation; aircraft design, testing and performance; aircraft instrumentation; aircraft propulsion and power; aircraft stability and control; and research and support facilities (air).

For related information see also *Astronautics*.

01 AERONAUTICS (GENERAL)

02 AERODYNAMICS

Includes aerodynamics of bodies, combinations, wings, rotors, and control surfaces; and internal flow in ducts and turbomachinery.

For related information see also *34 Fluid Mechanics and Heat Transfer*.

03 AIR TRANSPORTATION AND SAFETY

Includes passenger and cargo air transport operations; and aircraft accidents.

For related information see also *16 Space Transportation* and *85 Urban Technology and Transportation*.

04 AIRCRAFT COMMUNICATIONS AND NAVIGATION

Includes digital and voice communication with aircraft; air navigation systems (satellite and ground based); and air traffic control.

For related information see also *17 Spacecraft Communications, Command and Tracking* and *32 Communications*.

05 AIRCRAFT DESIGN, TESTING AND PERFORMANCE

Includes aircraft simulation technology.

For related information see also *18 Spacecraft Design, Testing and Performance*, and *39 Structural Mechanics*.

06 AIRCRAFT INSTRUMENTATION

Includes cockpit and cabin display devices; and flight instruments.

For related information see also *19 Spacecraft Instrumentation* and *35 Instrumentation and Photography*.

07 AIRCRAFT PROPULSION AND POWER

Includes prime propulsion systems and systems components, e.g., gas turbine engines and compressors; and on-board auxiliary power plants for aircraft.

For related information see also *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

08 AIRCRAFT STABILITY AND CONTROL

Includes aircraft handling qualities; piloting; flight controls; and autopilots.

09 RESEARCH AND SUPPORT FACILITIES (AIR)

Includes airports, hangars and runways; aircraft repair and overhaul facilities; wind tunnels; shock tube facilities; and engine test blocks.

For related information see also *14 Ground Support Systems and Facilities (Space)*.

ASTRONAUTICS

Includes astronautics (general); astrodynamics; ground support systems and facilities (space); launch vehicles and space vehicles; space transportation; spacecraft communications, command and tracking; spacecraft design, testing and performance; spacecraft instrumentation; and spacecraft propulsion and power.

For related information see also *Aeronautics*.

12 ASTRONAUTICS (GENERAL)

For extraterrestrial exploration see *91 Lunar and Planetary Exploration*.

13 ASTRODYNAMICS

Includes powered and free-flight trajectories; and orbit and launching dynamics.

14 GROUND SUPPORT SYSTEMS AND FACILITIES (SPACE)

Includes launch complexes, research and production facilities; ground support equipment, e.g., mobile transporters; and simulators.

For related information see also *09 Research and Support Facilities (Air)*.

15 LAUNCH VEHICLES AND SPACE VEHICLES

Includes boosters; manned orbital laboratories; reusable vehicles; and space stations.

16 SPACE TRANSPORTATION

Includes passenger and cargo space transportation, e.g., shuttle operations; and rescue techniques.

For related information see also *03 Air Transportation and Safety* and *85 Urban Technology and Transportation*.

17 SPACECRAFT COMMUNICATIONS, COMMAND AND TRACKING

Includes telemetry; space communications networks; astronavigation; and radio blackout.

For related information see also *04 Aircraft Communications and Navigation* and *32 Communications*.

18 SPACECRAFT DESIGN, TESTING AND PERFORMANCE

Includes spacecraft thermal and environmental control; and attitude control.

For life support systems see *54 Man/System Technology and Life Support*. For related information see also *05 Aircraft Design, Testing and Performance* and *39 Structural Mechanics*.

19 SPACECRAFT INSTRUMENTATION

For related information see also *06 Aircraft Instrumentation* and *35 Instrumentation and Photography*.

20 SPACECRAFT PROPULSION AND POWER

Includes main propulsion systems and components, e.g., rocket engines; and spacecraft auxiliary power sources.

For related information see also *07 Aircraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

CHEMISTRY AND MATERIALS

Includes chemistry and materials (general); composite materials; inorganic and physical chemistry; metallic materials; nonmetallic materials; and propellants and fuels.

23 CHEMISTRY AND MATERIALS (GENERAL)

Includes biochemistry and organic chemistry.

24 COMPOSITE MATERIALS

Includes laminates.

25 INORGANIC AND PHYSICAL CHEMISTRY

Includes chemical analysis, e.g., chromatography; combustion theory; electrochemistry; and photochemistry.

For related information see also *77 Thermodynamics and Statistical Physics*.

26 METALLIC MATERIALS

Includes physical, chemical, and mechanical properties of metals, e.g., corrosion; and metallurgy.

27 NONMETALLIC MATERIALS

Includes physical, chemical, and mechanical properties of plastics, elastomers, lubricants, polymers, textiles, adhesives, and ceramic materials.

28 PROPELLANTS AND FUELS

Includes rocket propellants, igniters, and oxidizers; storage and handling; and aircraft fuels.

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, and *44 Energy Production and Conversion*.

ENGINEERING

Includes engineering (general); communications; electronics and electrical engineering; fluid mechanics and heat transfer; instrumentation and photography; lasers and masers; mechanical engineering; quality assurance and reliability; and structural mechanics.

For related information see also *Physics*.

31 ENGINEERING (GENERAL)

Includes vacuum technology; control engineering; display engineering; and cryogenics.

32 COMMUNICATIONS

Includes land and global communications; communications theory; and optical communications.

For related information see also *04 Aircraft Communications and Navigation* and *17 Spacecraft Communications, Command and Tracking*.

33 ELECTRONICS AND ELECTRICAL ENGINEERING

Includes test equipment and maintainability; components, e.g., tunnel diodes and transistors; microminiaturization; and integrated circuitry.

For related information see also *60 Computer Operations and Hardware* and *76 Solid-State Physics*.

34 FLUID MECHANICS AND HEAT TRANSFER

Includes boundary layers; hydrodynamics; fluidics; mass transfer; and ablation cooling.

For related information see also *02 Aerodynamics* and *77 Thermodynamics and Statistical Physics*.

35 INSTRUMENTATION AND PHOTOGRAPHY

Includes remote sensors; measuring instruments and gages; detectors; cameras and photographic supplies; and holography.

For aerial photography see *43 Earth Resources*. For related information see also *06 Aircraft Instrumentation* and *19 Spacecraft Instrumentation*.

36 LASERS AND MASERS

Includes parametric amplifiers.

37 MECHANICAL ENGINEERING

Includes auxiliary systems (non-power); machine elements and processes; and mechanical equipment.

38 QUALITY ASSURANCE AND RELIABILITY

Includes product sampling procedures and techniques; and quality control.

39 STRUCTURAL MECHANICS

Includes structural element design and weight analysis; fatigue; and thermal stress.

For applications see *05 Aircraft Design, Testing and Performance* and *18 Spacecraft Design, Testing and Performance*.

GEOSCIENCES

Includes geosciences (general); earth resources; energy production and conversion; environment pollution; geophysics; meteorology and climatology; and oceanography.

For related information see also *Space Sciences*.

42 GEOSCIENCES (GENERAL)

43 EARTH RESOURCES

Includes remote sensing of earth resources by aircraft and spacecraft; photogrammetry; and aerial photography.

For instrumentation see *35 Instrumentation and Photography*.

44 ENERGY PRODUCTION AND CONVERSION

Includes specific energy conversion systems, e.g., fuel cells and batteries; global sources of energy; fossil fuels; geophysical conversion; hydroelectric power; and wind power.

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *85 Urban Technology and Transportation*.

45 ENVIRONMENT POLLUTION

Includes air, noise, thermal and water pollution; environment monitoring; and contamination control.

46 GEOPHYSICS

Includes aeronomy; upper and lower atmosphere studies; ionospheric and magnetospheric physics; and geomagnetism.

For space radiation see *93 Space Radiation*.

47 METEOROLOGY AND CLIMATOLOGY

Includes weather forecasting and modification.

48 OCEANOGRAPHY

Includes biological, dynamic and physical oceanography; and marine resources.

LIFE SCIENCES

Includes life sciences (general); aerospace medicine; behavioral sciences; man/system technology and life support; and planetary biology.

51 LIFE SCIENCES (GENERAL)

Includes genetics.

52 AEROSPACE MEDICINE

Includes physiological factors; biological effects of radiation; and weightlessness.

53 BEHAVIORAL SCIENCES

Includes psychological factors; individual and group behavior; crew training and evaluation; and psychiatric research.

54 MAN/SYSTEM TECHNOLOGY AND LIFE SUPPORT

Includes human engineering; biotechnology; and space suits and protective clothing.

55 PLANETARY BIOLOGY

Includes exobiology; and extraterrestrial life.

MATHEMATICAL AND COMPUTER SCIENCES

Includes mathematical and computer sciences (general); computer operations and hardware; computer programming and software; computer systems; cybernetics; numerical analysis; statistics and probability; systems analysis; and theoretical mathematics.

59 MATHEMATICAL AND COMPUTER SCIENCES (GENERAL)

60 COMPUTER OPERATIONS AND HARDWARE

Includes computer graphics and data processing.

For components see *33 Electronics and Electrical Engineering*.

61 COMPUTER PROGRAMMING AND SOFTWARE

Includes computer programs, routines, and algorithms.

62 COMPUTER SYSTEMS

Includes computer networks.

63 CYBERNETICS

Includes feedback and control theory.

For related information see also *54 Man/System Technology and Life Support*.

64 NUMERICAL ANALYSIS

Includes iteration, difference equations, and numerical approximation.

65 STATISTICS AND PROBABILITY

Includes data sampling and smoothing; Monte Carlo method; and stochastic processes.

66 SYSTEMS ANALYSIS

Includes mathematical modeling; network analysis; and operations research.

67 THEORETICAL MATHEMATICS

Includes topology and number theory.

PHYSICS

Includes physics (general); acoustics; atomic and molecular physics; nuclear and high-energy physics; optics; plasma physics; solid-state physics; and thermodynamics and statistical physics.

For related information see also *Engineering*.

70 PHYSICS (GENERAL)

For geophysics see *46 Geophysics*. For astrophysics see *90 Astrophysics*. For solar physics see *92 Solar Physics*.

71 ACOUSTICS

Includes sound generation, transmission, and attenuation.

For noise pollution see *45 Environment Pollution*.

72 ATOMIC AND MOLECULAR PHYSICS

Includes atomic structure and molecular spectra.

73 NUCLEAR AND HIGH-ENERGY PHYSICS

Includes elementary and nuclear particles; and reactor theory.

For space radiation see *93 Space Radiation*.

74 OPTICS

Includes light phenomena.

75 PLASMA PHYSICS

Includes magnetohydrodynamics and plasma fusion.

For ionospheric plasmas see *46 Geophysics*. For space plasmas see *90 Astrophysics*.

76 SOLID-STATE PHYSICS

Includes superconductivity.

For related information see also *33 Electronics and Electrical Engineering* and *36 Lasers and Masers*.

77 THERMODYNAMICS AND STATISTICAL PHYSICS

Includes quantum mechanics; and Bose and Fermi statistics.

For related information see also *25 Inorganic and Physical Chemistry* and *34 Fluid Mechanics and Heat Transfer*.

SOCIAL SCIENCES

Includes social sciences (general); administration and management; documentation and information science; economics and cost analysis; law and political science; and urban technology and transportation.

80 SOCIAL SCIENCES (GENERAL)

Includes educational matters.

81 ADMINISTRATION AND MANAGEMENT

Includes management planning and research.

82 DOCUMENTATION AND INFORMATION SCIENCE

Includes information storage and retrieval technology; micrography; and library science.

For computer documentation see *61 Computer Programming and Software*.

83 ECONOMICS AND COST ANALYSIS

Includes cost effectiveness studies.

84 LAW AND POLITICAL SCIENCE

Includes space law; international law; international cooperation; and patent policy.

85 URBAN TECHNOLOGY AND TRANSPORTATION

Includes applications of space technology to urban problems; technology transfer; technology assessment; and surface and mass transportation.

For related information see *03 Air Transportation and Safety*, *16 Space Transportation*, and *44 Energy Production and Conversion*.

SPACE SCIENCES

Includes space sciences (general); astronomy; astrophysics; lunar and planetary exploration; solar physics; and space radiation.

For related information see also *Geosciences*.

88 SPACE SCIENCES (GENERAL)**89 ASTRONOMY**

Includes radio and gamma-ray astronomy; celestial mechanics; and astrometry.

90 ASTROPHYSICS

Includes cosmology; and interstellar and interplanetary gases and dust.

91 LUNAR AND PLANETARY EXPLORATION

Includes planetology; and manned and unmanned flights.

For spacecraft design see *18 Spacecraft Design, Testing and Performance*. For space stations see *15 Launch Vehicles and Space Vehicles*.

92 SOLAR PHYSICS

Includes solar activity, solar flares, solar radiation and sunspots.

93 SPACE RADIATION

Includes cosmic radiation; and inner and outer earth's radiation belts.

For biological effects of radiation see *52 Aerospace Medicine*. For theory see *73 Nuclear and High-Energy Physics*.

GENERAL**99 GENERAL**

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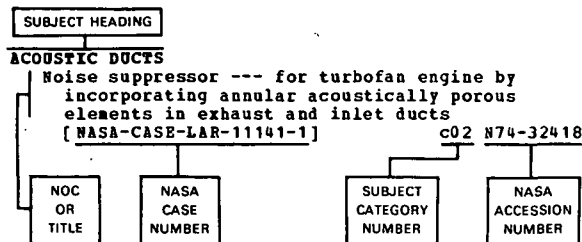
Subject Index

NASA PATENT ABSTRACTS BIBLIOGRAPHY

JULY 1981

Section 2

Typical Subject Index Listing



The subject heading is the key to the subject content of the document. A brief description of the document, e.g., title, title plus a title extension, or Notation of Content (NOC), is included for each subject entry to indicate the subject heading context; these descriptions are arranged under each subject heading in ascending accession number order. The NASA Case Number serves as the prime access number to the patent documents. The Subject Category Number indicates the category in Section 1 (Abstracts) in which the patent citation and abstract are located. The NASA accession number denotes the number by which the citation is identified within the subject category.

A

ABILITIES

Kinesimetric method and apparatus
[NASA-CASE-MSC-18929-1] c54 N81-15699

ABLATION

Transpirationally cooled heat ablation system
for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075

Hypersonic test facility for studying ablation
in models under high pressure and high
temperature
[NASA-CASE-XLA-00378] c11 N71-15925

Design of hypersonic test facility for ablation
tests and performance tests of vehicles under
conditions of high temperature and pressure
[NASA-CASE-XLA-05378] c11 N71-21475

Ablation sensor for measuring char layer
recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586

Ablation sensor for measuring surface ablation
rate of material on vehicles entering earth's
atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991

Ablative system with liquid carrying ablative
material bodies and forming self-replacing
ablative surface
[NASA-CASE-LEW-10359] c33 N72-25911

ABLATIVE MATERIALS

Filling honeycomb matrix with deaerated paste
filler
[NASA-CASE-XMS-01108] c15 N69-24322

Sensor device with switches for measuring
surface recession of charring and noncharring
ablaters
[NASA-CASE-XLA-01781] c14 N69-39975

Vacuum method for molding thermosetting
compounds used as ablative materials
[NASA-CASE-XLA-01091] c15 N71-10672

Ablative resins used for retarding regression in
ablative material
[NASA-CASE-XLB-05913] c33 N71-14032

Design, development, and characteristics of
ablation structures
[NASA-CASE-XMS-01816] c33 N71-15623

Method and apparatus for fabrication of heat
insulating and ablative reentry structure
[NASA-CASE-XMS-02009] c33 N71-20834

Production and application of sprayable fiber
reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100

Ablative heat shield for protection from
aerodynamic heating of reentry spacecraft

[NASA-CASE-MSC-12143-1] c33 N72-17947
Ablative system with liquid carrying ablative
material bodies and forming self-replacing
ablative surface
[NASA-CASE-LEW-10359] c33 N72-25911
Carrier liquid system containing bodies of
ablative material
[NASA-CASE-LEW-10359-2] c33 N73-25952
Ablation article and surface for analyzing flow
transition on ablative surface
[NASA-CASE-LAR-10439-1] c33 N73-27796
Dual measurement ablation sensor
[NASA-CASE-LAR-10105-1] c34 N74-15652
Sprayable low density ablator and application
process
[NASA-CASE-MFS-23506-1] c24 N78-24290
Intumescent-ablator coatings using endothermic
fillers
[NASA-CASE-ARC-11043-1] c24 N78-27180
Cork-resin ablative insulation for complex
surfaces and method for applying the same
[NASA-CASE-MFS-23626-1] c24 N80-26388

ABORT APPARATUS

Coupling device for linear shaped charge for
space vehicle abort system
[NASA-CASE-XLA-00189] c33 N70-36846

ABRASION RESISTANCE

Zinc dust formulation for abrasion resistant
steel coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581
Improved nozzle for use with abrasive and/or
corrosive materials
[NASA-CASE-WFO-13823-1] c37 N77-17466
Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200
Process for producing a well-adhered durable
optical coating on an optical plastic substrate
--- abrasion resistant polymethyl methacrylate
lenses
[NASA-CASE-ARC-11039-1] c74 N78-32854
Heat sealable, flame and abrasion resistant
coated fabric
[NASA-CASE-MSC-18382-1] c27 N80-24440

ABSORBENTS

Absorbent apparatus for separating gas from
liquid-gas stream used in environmental
control under zero gravity conditions
[NASA-CASE-XMS-01492] c05 N70-41297
Fluid flow control valve for regulating fluids
in molecular quantities
[NASA-CASE-XLE-00703] c15 N71-15967
Noncontaminating swab with absorbent end covered
with netted envelope to prevent egress of
absorbent material
[NASA-CASE-MFS-18100] c15 N72-11390
Protein sterilization of firefly luciferase
without denaturation
[NASA-CASE-GSC-10225-1] c06 N73-27086
Oil and fat absorbing polymers
[NASA-CASE-NFO-11609-2] c27 N77-31308
Sweat collection capsule
[NASA-CASE-ARC-11031-1] c54 N78-22720

ABSORBERS (EQUIPMENT)

Absorbent product and articles made therefrom
--- for collection of human wastes
[NASA-CASE-MSC-18223-1] c24 N81-16127

ABSORBERS (MATERIALS)

Broadband chokes and absorbers to reduce
spurious radiation patterns of antenna array
caused by support structures
[NASA-CASE-XMS-05303] c07 N69-27462
Analytical photoionization mass spectrometer
with argon gas filter between light source and
monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461

SUBJECT

ABSORPTION

SUBJECT INDEX

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[NASA-CASE-LAR-12260-1] c35 N79-10390

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[NASA-CASE-XGS-00824] c15 N71-16078

Burst diaphragm flow initiator for installation in short duration wind tunnels
[NASA-CASE-MPS-12915] c11 N71-17600

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[NASA-CASE-FRC-10022] c15 N71-26635

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[NASA-CASE-ARC-10131-1] c15 N71-27754

Zero power telemetry actuated switch for biomedical equipment
[NASA-CASE-ARC-10105] c09 N72-17153

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[NASA-CASE-MPS-20413] c15 N72-21463

Hermetically sealed elbow actuator for use in severe environments
[NASA-CASE-MPS-14710] c09 N72-22195

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[NASA-CASE-NPO-11222] c15 N72-25456

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[NASA-CASE-NPO-10244] c15 N72-26371

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[NASA-CASE-NPO-11340] c15 N72-33477

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[NASA-CASE-MPS-20944] c15 N73-13466

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[NASA-CASE-LAR-12412-1] c05 N80-11065

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[NASA-CASE-IMP-03844-1] c14 N71-26474

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[NASA-CASE-GSC-10065-1] c10 N71-27136

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[NASA-CASE-FRC-11041-1] c33 N80-20488

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compositions
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[NASA-CASE-XGS-05534] c23 N71-16355
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luciferase containing mixtures for use in life
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[NASA-CASE-GSC-11169-2] c05 N73-32011
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Aerospace vehicle with variable planform for hypersonic and subsonic flight
[NASA-CASE-XLA-00805] c31 N70-38010
Development of resilient fastener for attaching skin of aerospace vehicles to permit movement of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035
Chemical spot tests for identification of titanium and titanium alloys used in aerospace vehicles
[NASA-CASE-LAR-10539-1] c17 N73-12547
- AEROSPACEPLANES**
Multistage aerospace craft --- perspective drawings of conceptual design
[NASA-CASE-IMP-02263] c05 N74-10907

AFTERBODIES

AFTERBODIES

Afterburner-equipped jet engine nacelle with slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493

AFTERBURNING

Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374

AGING (MATERIALS)

Method of heat treating age-hardenable alloys
[NASA-CASE-INP-01311] c26 N75-29236

AGRICULTURE

Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

AILERONS

Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-IAC-10019] c15 N71-23809

AIR

Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
Superconducting magnetic field trapping device for producing magnetic field in air
[NASA-CASE-INP-01185] c26 N73-28710

AIR BREATHING ENGINES

Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120

AIR CONDITIONING

Automotive absorption air conditioner utilizing solar and motor waste heat
[NASA-CASE-NPO-15183] c44 N80-29843
Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c31 N80-32583

AIR CONDITIONING EQUIPMENT

Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-INP-03212] c15 N71-22721
Air conditioning system and component therefore distributing air flow from opposite directions
[NASA-CASE-GSC-11445-1] c31 N74-27902

AIR COOLING

Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264

AIR FILTERS

Development of filter apparatus for gas separation and characteristics of filter cell support frame for improved operation
[NASA-CASE-MSC-12297] c14 N72-23457

AIR FLOW

Wind tunnel air flow modulating device and apparatus for selectively generating wave motion in wind tunnel airstream
[NASA-CASE-XLA-00112] c11 N70-33287
Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
Method for maintaining good performance in gas turbine during air flow distortion
[NASA-CASE-LEW-10286-1] c28 N71-28915
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds
[NASA-CASE-LAR-10612-1] c12 N73-28144
Air conditioning system and component therefore distributing air flow from opposite directions
[NASA-CASE-GSC-11445-1] c31 N74-27902
Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418
Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

AIR INTAKES

Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981

SUBJECT INDEX

Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736
Self stabilizing sonic inlet
[NASA-CASE-LEW-11890-1] c05 N79-24976
Curved centerline air intake for a gas turbine engine
[NASA-CASE-LEW-13201-1] c07 N81-14999

AIR LOCKS

Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space
[NASA-CASE-XLA-02050] c31 N71-22968
System for removing and repairing spacecraft control thrusters by use of portable air locks
[NASA-CASE-NFS-20325] c28 N71-27095
Airlock for waste transferal from pressurized enclosure aboard space vehicle to waste receiver at negative pressure
[NASA-CASE-NFS-20922] c31 N72-20840
Airlock
[NASA-CASE-NFS-20922-1] c18 N74-22136
Apparatus for inserting and removing specimens from high temperature vacuum furnaces
[NASA-CASE-LAR-10841-1] c31 N74-27900

AIR NAVIGATION

Autonomous navigation system --- gyroscopic pendulum for air navigation
[NASA-CASE-ARC-11257-1] c04 N81-21047

AIR POLLUTION

Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-XGS-01971] c15 N71-15922
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656
Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742
Method for detecting pollutants --- through chemical reactions and heat treatment
[NASA-CASE-LAR-11405-1] c45 N76-31714
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497
Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527

AIR PURIFICATION

Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-NFS-12806] c14 N71-17588
Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-INP-03212] c15 N71-22721
Cell and method for electrolysis of water and anode therefor --- oxygen recovery in connection with space transportation vehicles
[NASA-CASE-MSC-16394-1] c25 N80-26406

AIR SAMPLING

Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401

AIR TRAFFIC CONTROL

Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
System and method for position locating for air traffic control involving supersonic transports
[NASA-CASE-GSC-10087-3] c07 N72-12080

AIRBORNE EQUIPMENT

Inflatable radar reflector unit - lightweight,

SUBJECT INDEX

AIRCRAFT INSTRUMENTS

- highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-IMS-00893] c07 N70-40063
- AIRBORNE/SPACEBORNE COMPUTERS**
Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-IGS-04766] c08 N71-18602
Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914
- AIRCRAFT**
Pilot warning indicator system of intruder aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483
Thin conformal antenna array for microwave power conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391
- AIRCRAFT ACCIDENTS**
Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24548
- AIRCRAFT APPROACH SPACING**
Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631
- AIRCRAFT COMPARTMENTS**
Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ABC-11040-2] c24 N78-27184
- AIRCRAFT CONFIGURATIONS**
Variable sweep wing configuration for supersonic aircraft
[NASA-CASE-XLA-00230] c02 N70-33255
Television simulation for aircraft and space flight
[NASA-CASE-XFR-03107] c09 N71-19449
Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ABC-10470-1] c02 N73-26005
Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132
- AIRCRAFT CONSTRUCTION MATERIALS**
Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-HSC-14795-2] c24 N78-25138
- AIRCRAFT CONTROL**
Development and characteristics of control system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
[NASA-CASE-XAC-08972] c02 N71-20570
Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-XAC-10019] c15 N71-23809
Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
Development of aircraft control system with high performance electrically controlled and mechanically operated hydraulic valves for precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
Development of thrust control system for application to control of aircraft and spacecraft
[NASA-CASE-HSC-13397-1] c21 N72-25595
Aircraft control system for rotary wing aircraft
[NASA-CASE-ERC-10439] c02 N73-19004
Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26004
- Integrated lift/drag controller for aircraft
[NASA-CASE-ABC-10456-1] c05 N75-12930
High lift aircraft --- with improved stability, control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
Filtering technique based on high-frequency plant modeling for high-gain control
[NASA-CASE-LAR-12215-1] c08 N79-23097
- AIRCRAFT DESIGN**
Design of supersonic aircraft with novel fixed, swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ABC-10470-1] c02 N73-26005
Multistage aerospace craft --- perspective drawings of conceptual design
[NASA-CASE-IMP-02263] c05 N74-10907
High lift aircraft --- with improved stability, control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
Oblique-wing supersonic aircraft
[NASA-CASE-ABC-10470-3] c05 N76-29217
Supersonic transport --- using canard surfaces
[NASA-CASE-LAR-11932-1] c05 N78-32086
Helicopter rotor airfoil
[NASA-CASE-LAR-12396-1] c02 N79-24958
- AIRCRAFT DETECTION**
Surface based altitude measuring system for accurately measuring altitude of airborne vehicle
[NASA-CASE-ERC-10412-1] c09 N73-12211
Apparatus for measuring an aircraft's speed and height
[NASA-CASE-LAR-12275-1] c35 N79-18296
- AIRCRAFT ENGINES**
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118
Portable device for use in starting air-start-units for aircraft and having cable lead testing capability
[NASA-CASE-FRC-10113-1] c33 N80-26599
Aircraft engine nozzle
[NASA-CASE-ABC-10977-1] c07 N80-32392
- AIRCRAFT EQUIPMENT**
Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
[NASA-CASE-ERC-10081] c14 N72-28437
A system for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation
[NASA-CASE-FRC-11005-1] c06 N79-24988
Air speed and attitude probe
[NASA-CASE-FRC-11009-1] c06 N80-18036
- AIRCRAFT FUEL SYSTEMS**
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467
- AIRCRAFT GUIDANCE**
Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point
[NASA-CASE-FRC-10049-1] c04 N74-13420
Improved Sun-sensing guidance system for high-altitude aircraft
[NASA-CASE-FRC-11052-1] c04 N80-20249
- AIRCRAFT HAZARDS**
Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLB-00388] c28 N70-34788
- AIRCRAFT HYDRAULIC SYSTEMS**
Variable-orifice hydraulic mechanism for aircraft gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793
A hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands
[NASA-CASE-LAR-12412-1] c05 N80-11065
- AIRCRAFT INSTRUMENTS**
Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807

AIRCRAFT LANDING

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Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824

Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157

Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882

Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268

Aircraft horizon and vertical indicator
[NASA-CASE-ERC-10392] c21 N73-14692

G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381

Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114

Aircraft-mounted crash-activated transmitter device
[NASA-CASE-MPS-16609-3] c03 N76-32140

AIRCRAFT LANDING

Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

Magnetic method for detection of aircraft position relative to runway
[NASA-CASE-ARC-10179-1] c21 N72-22619

Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930

Vehicle simulator binocular multiplanar visual display system
[NASA-CASE-ARC-10808-1] c09 N76-24280

Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083

AIRCRAFT LAUNCHING DEVICES

Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

AIRCRAFT MANEUVERS

G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381

AIRCRAFT MODELS

Free flight suspension system for use with aircraft models in wind tunnel tests
[NASA-CASE-XLA-00939] c11 N71-15926

Variable geometry wind tunnel for testing aircraft models at subsonic speeds
[NASA-CASE-XLA-07430] c11 N72-22246

Deploy/release system --- model aircraft flight control
[NASA-CASE-LAR-11575-1] c02 N76-16014

AIRCRAFT NOISE

Instrumentation for measuring aircraft noise and sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232

AIRCRAFT PERFORMANCE

Development of auxiliary lifting system to provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257

AIRCRAFT PILOTS

Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597

AIRCRAFT SAFETY

Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807

Development and operating principles of collision warning system for aircraft accident prevention
[NASA-CASE-HQN-10703] c21 N73-13643

Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421

AIRCRAFT STABILITY

Mechanical stabilization system for VTOL aircraft
[NASA-CASE-XLA-06339] c02 N71-13422

Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques

[NASA-CASE-LAR-10682-1] c02 N73-26004

A velocity vector control system augmented with direct lift control --- stability augmentation using manual control
[NASA-CASE-LAR-12268-1] c08 N79-20136

AIRCRAFT STRUCTURES

Fatigue testing device applying random discrete load levels to test specimen and applicable to aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003

Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085

Three-axis adjustable loading structure
[NASA-CASE-PRC-10051-1] c35 N74-13129

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

AIRCRAFT TIRES

Improved tire/wheel concept --- pneumatic aircraft tire
[NASA-CASE-LAR-11695-2] c37 N80-18402

AIRCRAFT WAKES

System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-PRC-11024-1] c02 N80-28300

AIRFOILS

Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410

Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411

Wind tunnel
[NASA-CASE-LAR-10135-1] c09 N79-21083

An annular wing
[NASA-CASE-PRC-11007-2] c02 N79-24959

Surface finishing
[NASA-CASE-MSC-12631-3] c27 N81-14077

AIRFRAMES

Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ARC-10470-1] c02 N73-26005

A cooling system for an aircraft having a cruise range from Mach 2 to Mach 8
[NASA-CASE-LAR-12406-1] c05 N79-24980

AIRSPED

Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

Apparatus for measuring an aircraft's speed and height
[NASA-CASE-LAR-12275-1] c35 N79-18296

Air speed and attitude probe
[NASA-CASE-PRC-11009-1] c06 N80-18036

ALCOHOLS

New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244

Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MPS-20180] c16 N72-12440

ALDEHYDES

Direct synthesis of polymeric schiff bases from two amines and two aldehydes
[NASA-CASE-XNP-08655] c06 N71-11239

Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XNP-08656] c06 N71-11242

Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
[NASA-CASE-XNP-03074] c06 N71-24740

Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214

ALIGNMENT

Centering device with ultrafine adjustment for use with roundness measuring apparatus
[NASA-CASE-XNP-00480] c14 N70-39898

Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction

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ALTITUDE

- [NASA-CASE-XNP-01452] c15 N70-41371
Electro-optical/computer system for aligning large structural members and maintaining correct position
- [NASA-CASE-XNP-02029] c14 N70-41955
Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
- [NASA-CASE-XNP-00684] c21 N71-21688
Description of device for aligning stacked sheets of paper for repetitive cutting
- [NASA-CASE-XNS-04178] c15 N71-22798
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
- [NASA-CASE-NPO-11087] c23 N71-29125
Measuring roll alignment of test body with respect to reference body
- [NASA-CASE-GSC-10514-1] c14 N72-20379
Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
- [NASA-CASE-KSC-10622-1] c31 N72-21893
Design of precision vertical alignment system using laser with gravitationally sensitive cavity
- [NASA-CASE-ARC-10444-1] c16 N73-33397
Spacecraft docking and alignment system --- using television camera system
- [NASA-CASE-MSC-12559-1] c18 N76-14186
Method of constructing dish ion thruster grids to provide hole array spacing compensation
- [NASA-CASE-LEW-11876-1] c20 N76-21276
Optical alignment device
- [NASA-CASE-ARC-10932-1] c74 N76-22993
Precision alignment apparatus for cutting a workpiece
- [NASA-CASE-LAR-11658-1] c37 N77-14478
Guide for a typewriter
- [NASA-CASE-MPS-15218-1] c37 N77-19457
Rotary target V-block --- aligning wind tunnel apparatus for optical measurement
- [NASA-CASE-LAR-12007-2] c74 N79-25876
Rhomboid prism pair for rotating the plane of parallel light beams --- laser velocimeters
- [NASA-CASE-ARC-11311-1] c74 N81-16882
- ALKALI METALS**
- Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
- [NASA-CASE-XGS-04119] c18 N69-39979
Analytical test apparatus and method for determining oxygen content in alkali liquid metal
- [NASA-CASE-XLB-01997] c06 N71-23527
Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
- [NASA-CASE-XGS-04799] c18 N71-24183
Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
- [NASA-CASE-LEW-11358] c03 N71-26084
Method for producing alkali metal dispersions of high purity
- [NASA-CASE-XNP-08876] c17 N73-28573
Process for preparing higher oxides of the alkali and alkaline earth metals
- [NASA-CASE-ARC-10992-1] c26 N78-32229
Alkali-metal silicate binders and methods of manufacture
- [NASA-CASE-GSC-12303-1] c24 N79-31347
- ALKALINE BATTERIES**
- Method for determining state of charge of alkali batteries by using tritium as tracer
- [NASA-CASE-XNP-01464] c03 N71-10728
Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
- [NASA-CASE-XGS-05434] c03 N71-20491
Electrocatalyst for oxygen reduction in low temperature alkaline fuel cell
- [NASA-CASE-EQN-10537-1] c06 N72-10138
Inorganic-organic separators for alkaline batteries
- [NASA-CASE-LEW-12649-1] c44 N78-25530
- Flexible formulated plastic separators for alkaline batteries
- [NASA-CASE-LEW-12363-4] c44 N80-18555
- ALKALINE EARTH OXIDES**
- Process for preparing higher oxides of the alkali and alkaline earth metals
- [NASA-CASE-ARC-10992-1] c26 N78-32229
- ALKYL COMPOUNDS**
- Preparation of fluorohydroxy ethers by reacting fluoroalkylene oxides with alkali salt of polyfluoroalkylene diol
- [NASA-CASE-MPS-10507] c06 N73-30101
- ALLOYS**
- Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
- [NASA-CASE-XNP-03063] c17 N71-23365
Metal alloy bearing materials for space applications
- [NASA-CASE-XLB-05033] c15 N71-23810
High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
- [NASA-CASE-XLA-06199] c15 N71-24875
Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
- [NASA-CASE-XNP-08907] c23 N71-29123
Two-step diffusion welding process of unrecrystallized alloys
- [NASA-CASE-LEW-11388-1] c15 N73-32358
Brazing alloy binder
- [NASA-CASE-XNP-05868] c26 N75-27125
Brazing alloy
- [NASA-CASE-XNP-03878] c26 N75-27127
- ALPHA PARTICLES**
- Method and means for helium/hydrogen ratio measurement by alpha scattering
- [NASA-CASE-NPO-14079-1] c25 N80-20334
- ALPHANUMERIC CHARACTERS**
- X-Y alphanumeric character generator for oscilloscopes
- [NASA-CASE-GSC-11582-1] c33 N75-19517
- ALTERNATING CURRENT**
- Characteristics of high power, low distortion, alternating current power amplifier
- [NASA-CASE-LAR-10218-1] c09 N70-34559
Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
- [NASA-CASE-GSC-10041-1] c10 N71-19418
Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
- [NASA-CASE-XNS-06061] c05 N71-23317
Solid state circuit for switching alternating current input signal as function of direct current gating transistor
- [NASA-CASE-XNP-06505] c10 N71-24799
Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
- [NASA-CASE-MPS-10068] c10 N71-25139
Inverters for changing direct current to alternating current
- [NASA-CASE-XGS-06226] c10 N71-25950
Dc to ac to dc converter with transistor driven synchronous rectifiers
- [NASA-CASE-GSC-11126-1] c09 N72-25253
Phase protection system for ac power lines
- [NASA-CASE-MSC-17832-1] c33 N74-14956
Improved power factor control system for ac induction motors
- [NASA-CASE-MPS-23988-1] c33 N79-25315
Non-contacting power transfer device
- [NASA-CASE-GSC-12595-1] c33 N81-12331
Solar cell system having alternating current output
- [NASA-CASE-LEW-12806-2] c44 N81-12542
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- Echo tracker/range finder for radars and sonars
- [NASA-CASE-NPO-14361-1] c32 N79-26253
- ALTITUDE**
- Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft

ALTITUDE CONTROL

[NASA-CASE-XLA-01907] c14 N71-23268
 A system for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation
 [NASA-CASE-FRC-11005-1] c06 N79-24988
ALTITUDE CONTROL
 Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
 [NASA-CASE-XLA-00128] c15 N70-37925
ALUMINUM
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 [NASA-CASE-MFS-07369] c15 N71-20443
 Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
 [NASA-CASE-XLA-01995] c18 N71-23047
 Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dichromate for adhesive bonding
 [NASA-CASE-XMF-02303] c17 N71-23828
 Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
 [NASA-CASE-XLE-06969] c17 N71-24142
 Nickel plating onto etched aluminum castings
 [NASA-CASE-XNP-04148] c17 N71-24830
 Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
 [NASA-CASE-XLA-08966-1] c17 N71-25903
 Heat activated emf cells with aluminum anode
 [NASA-CASE-LBW-11359] c03 N71-28579
 Heat activated cell with aluminum anode
 [NASA-CASE-LBW-11359-2] c03 N72-20034
 Method of preparing graphite reinforced aluminum composite
 [NASA-CASE-MFS-21077-1] c24 N75-28135
 Method of fluxless brazing and diffusion bonding of aluminum containing components
 [NASA-CASE-MSC-14435-1] c37 N76-18455
 Method for making an aluminum or copper substrate panel for selective absorption of solar energy
 [NASA-CASE-MFS-23518-1] c44 N79-11469
 Aluminum ion-containing polyimide adhesives --- bonding temperature resistant materials
 [NASA-CASE-LAR-12640-1] c27 N80-16164
 Recovery of aluminum from composite propellants
 [NASA-CASE-NPO-14110-1] c28 N81-15119
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 High strength aluminum casting alloy for cryogenic applications in aerospace engineering
 [NASA-CASE-XNP-02786] c17 N71-20743
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 [NASA-CASE-XMF-02303] c17 N71-23828
 Method of producing complex aluminum alloy parts of high temper, and products thereof
 [NASA-CASE-MSC-19693-1] c26 N78-24333
 NiCrAl ternary alloy having improved cyclic oxidation resistance
 [NASA-CASE-LBW-13339-1] c26 N81-12211
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 [NASA-CASE-LBW-11267-1] c17 N73-32414
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 [NASA-CASE-NPO-11975-1] c28 N74-33209
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 [NASA-CASE-LBW-11696-1] c37 N75-13261
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 [NASA-CASE-LBW-11696-2] c26 N75-19408
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 [NASA-CASE-LAR-10629-1] c35 N75-33367
 A silicon-slurry/aluminate coating --- protects aircraft and land-based gas turbine engines
 [NASA-CASE-LBW-13343-1] c24 N80-26389

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 [NASA-CASE-GSC-11577-1] c37 N75-15992
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 [NASA-CASE-GSC-11577-3] c24 N79-25143
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 [NASA-CASE-ARC-11267-1] c23 N80-26386
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 [NASA-CASE-ARC-11267-2] c25 N80-26407
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 [NASA-CASE-LAR-12054-2] c27 N81-14078
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 [NASA-CASE-XMF-08655] c06 N71-11239
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 [NASA-CASE-ARC-10464-1] c27 N74-12812
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 [NASA-CASE-ARC-10469-1] c25 N75-12086
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 [NASA-CASE-XMS-05562-1] c09 N69-39986
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 [NASA-CASE-XGS-01222] c10 N71-20841
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 [NASA-CASE-NPO-11023] c09 N72-17155
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[NASA-CASE-XGS-02812] c09 N71-19466
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- Comb type traveling wave maser amplifier for improved high gain broadband output
[NASA-CASE-NPO-10548] c16 N71-24831
- Vibrophonocardiograph comprising low weight and small volume piezoelectric microphone with amplifier having high input impedance for high sensitivity and low frequency response
[NASA-CASE-XPR-07172] c05 N71-27234
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[NASA-CASE-XNP-01068] c10 N71-28739
- Active RC filter networks and amplifiers for deep space magnetic field measurement
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[NASA-CASE-XNP-00477] c08 N73-28045
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[NASA-CASE-XNP-05612] c09 N69-21468
- Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-XAC-04030] c10 N71-19472
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[NASA-CASE-XMS-04269] c16 N71-22895
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[NASA-CASE-XAC-02807] c09 N71-23021
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[NASA-CASE-NPO-10302] c10 N71-26142
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[NASA-CASE-GSC-10880-1] c08 N72-11172
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[NASA-CASE-ERC-10048] c09 N72-25251
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[NASA-CASE-XLA-00670] c08 N71-12501
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[NASA-CASE-XAC-04031] c08 N71-18594
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[NASA-CASE-XNP-04780] c08 N71-19687
- Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LBW-10345-1] c10 N71-25899
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[NASA-CASE-NPO-10344] c10 N71-26544
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[NASA-CASE-MSC-13110-1] c08 N72-22163
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[NASA-CASE-NPO-11016] c08 N72-31226
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[NASA-CASE-NPO-11821-1] c08 N73-26175
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[NASA-CASE-ARC-10443-1] c14 N73-20477

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
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[NASA-CASE-ARC-10639-1] c35 N78-13400

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[NASA-CASE-XNP-05224] c14 N71-23726

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[NASA-CASE-MPS-20916] c14 N73-25460

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[NASA-CASE-ARC-10985-1] c52 N79-10724

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[NASA-CASE-ARC-11036-1] c35 N78-32395

Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N81-14968

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[NASA-CASE-XNP-04415] c14 N71-24693

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[NASA-CASE-XMS-05936] c14 N70-41682

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[NASA-CASE-GSC-11444-1] c14 N73-28490

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[NASA-CASE-LAR-12178-1] c74 N80-21138

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[NASA-CASE-XGS-00619] c30 N70-40016

Rim inertial measuring system --- to measure angular rates and linear accelerations
[NASA-CASE-LAR-12052-1] c04 N80-18019

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[NASA-CASE-XNP-00447] c14 N70-33179

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[NASA-CASE-XGS-05680] c14 N71-17585

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[NASA-CASE-NPO-14170-1] c37 N81-15364

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[NASA-CASE-ARC-11107-1] c25 N80-16116

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[NASA-CASE-XNP-06409] c06 N71-23230

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[NASA-CASE-XGS-04047-2] c03 N72-11062

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[NASA-CASE-LAR-12304-1] c35 N80-20559

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[NASA-CASE-XLE-00145] c28 N70-36806

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[NASA-CASE-GSC-10709-1] c28 N71-25213

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[NASA-CASE-XLE-00222] c02 N70-37939

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[NASA-CASE-LEW-11358] c03 N71-26084

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[NASA-CASE-HQN-10862-1] c44 N76-29699

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[NASA-CASE-NPO-10870-1] c33 N77-22386

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[NASA-CASE-NPO-10857-1] c33 N80-14330

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[NASA-CASE-XLE-00035] c33 N71-29151

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[NASA-CASE-XLA-00414] c07 N70-38200

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[NASA-CASE-XLA-00901] c07 N71-10775

Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
[NASA-CASE-GSC-10452] c07 N71-12396

Tracking antenna system with array for synchronous satellite or ground based radar
[NASA-CASE-GSC-10553-1] c07 N71-19854

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[NASA-CASE-XMS-09610] c07 N71-24625

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[NASA-CASE-HSC-12205-1] c07 N71-27056

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[NASA-CASE-GSC-10220-1] c07 N71-27233

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[NASA-CASE-XGS-02290] c07 N71-28809

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[NASA-CASE-NPO-10301] c07 N72-11148

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[NASA-CASE-ERC-10285] c10 N73-16206
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[NASA-CASE-MSC-12593-1] c17 N76-21250
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[NASA-CASE-NPO-13886-1] c32 N78-24391
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[NASA-CASE-NPO-14641-1] c32 N79-32408
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[NASA-CASE-GSC-12365-1] c32 N80-28578
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[NASA-CASE-NPO-14536-1] c32 N81-14185
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[NASA-CASE-MSC-16800-1] c32 N81-14187

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antenna shaft
[NASA-CASE-KSC-10769-1] c33 N74-29556
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--- to receive RF signals from spacecraft
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[NASA-CASE-NPO-14839-1] c35 N80-16313

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[NASA-CASE-NPO-14519-1] c32 N80-23524

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multimode monopulse antenna feed system for
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[NASA-CASE-XNP-01735] c07 N71-22750
Nose cone mounted heat resistant antenna
comprising plurality of adjacent layers of
silica not introducing paths of high thermal
conductivity through ablative shield
[NASA-CASE-XNS-04312] c07 N71-22984
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input signals on two separate antennas to form
two processed signals
[NASA-CASE-MSC-12205-1] c07 N71-27056
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dipole antenna using deformable tubular
metallic strip element
[NASA-CASE-BQN-00937] c07 N71-28979
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of electromagnetic surface waves on dielectric
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system
[NASA-CASE-GSC-10064-1] c10 N72-22235
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automatically expanded to operating state
[NASA-CASE-KSC-10392] c07 N73-26117
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with truncated concave ellipsoid subreflector
[NASA-CASE-GSC-11760-1] c33 N75-19516
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[NASA-CASE-LAR-11112-1] c32 N76-15330
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[NASA-CASE-NPO-13568-1] c32 N76-21365
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[NASA-CASE-NPO-13553-1] c33 N76-32457
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[NASA-CASE-MSC-18606-1] c32 N80-24511
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[NASA-CASE-LAR-11745-1] c32 N80-29539

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[NASA-CASE-GSC-10452] c07 N71-12396
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[NASA-CASE-GSC-11046-1] c07 N73-28013
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[NASA-CASE-NPO-13171-1] c32 N74-11000
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[NASA-CASE-GSC-11909] c32 N74-20863
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[NASA-CASE-GSC-11968-1] c32 N76-15329
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[NASA-CASE-NPO-14022-1] c32 N78-31321
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spurious radiation patterns of antenna array
caused by support structures
[NASA-CASE-XNS-05303] c07 N69-27462
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pattern of equal beamwidths and suppressed
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[NASA-CASE-XNP-01057] c07 N71-15907
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volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804
High impact antennas with high radiating
efficiency
[NASA-CASE-NPO-10231] c07 N71-26101
Pattern and impedance matching improvements in
transversely polarized triaxial antenna
[NASA-CASE-IGS-02290] c07 N71-28809
System for locating lightning strokes by
coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110
Highly efficient antenna system using a
corrugated horn and scanning hyperbolic
reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365
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processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278
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[NASA-CASE-MSC-16800-1] c32 N81-14187

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[NASA-CASE-IGS-09190] c31 N71-16102
High impact antennas with high radiating
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[NASA-CASE-NPO-10231] c07 N71-26101
Collapsible antenna boom and coaxial
transmission line having inflatable inner tube
[NASA-CASE-NPS-20068] c07 N71-27191
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approximating line source
[NASA-CASE-NPO-10303] c07 N72-22127
Antenna grout replacement system
[NASA-CASE-NPO-15205-1] c37 N81-19457

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Determination of antimicrobial susceptibilities
on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750

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Development of hybrid bearing lubrication system
with combination of standard type lubrication
and magnetic flux field for earth atmosphere
and space environment operation
[NASA-CASE-INP-01641] c15 N71-22997
Development of rolling element bearing for
operation in ultrahigh vacuum environment

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[NASA-CASE-XLE-09527-2] c15 N71-26189
 Fatigue life of hybrid antifriction bearings at ultrahigh speeds
 [NASA-CASE-LEW-11152-1] c15 N73-32359
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 [NASA-CASE-LEW-11026-1] c15 N73-33383
 Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications
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 [NASA-CASE-LEW-11930-3] c24 N80-33482

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 [NASA-CASE-MFS-22758-1] c70 N75-26789

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 Indomethacin-antihistamine combination for gastric ulceration control
 [NASA-CASE-ABC-11118-1] c52 N78-11692
 Indomethacin-antihistamine combination for gastric ulceration control
 [NASA-CASE-ABC-11118-2] c52 N81-14613

ANTIREFLECTION COATINGS
 Silicon nitride coated, plastic covered solar cell
 [NASA-CASE-LEW-11496-1] c44 N77-14580

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 [NASA-CASE-MFS-20698] c15 N72-20446

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 [NASA-CASE-INP-03332] c09 N71-10618
 Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
 [NASA-CASE-XPB-05302] c15 N71-23254
 Apparatus for on-film optical recording of camera lens aperture and focus setting
 [NASA-CASE-MSC-12363-1] c14 N73-26431
 Method of forming aperture plate for electron microscope
 [NASA-CASE-ABC-10448-2] c74 N75-12732
 Method of making an apertured casting --- using duplicate mold
 [NASA-CASE-LEW-11169-1] c37 N76-23570
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 [NASA-CASE-ABC-10448-3] c35 N77-14408
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 [NASA-CASE-NPO-14035-1] c32 N78-18266

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 Intra- and extravehicular life support space suite for Apollo astronauts
 [NASA-CASE-MSC-12609-1] c05 N73-32012

APOLLO SPACECRAFT
 Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module
 [NASA-CASE-MSC-12279-1] c15 N70-35679
 Energy absorbing crew couch strut for Apollo command module
 [NASA-CASE-MSC-12279] c15 N72-17450

APPLICATIONS OF MATHEMATICS
 Apparatus for computing square roots
 [NASA-CASE-IGS-04768] c08 N71-19437

APPROACH INDICATORS
 Spectrally balanced chromatic landing approach lighting system
 [NASA-CASE-ABC-10990-1] c04 N77-12031

AQUEOUS SOLUTIONS
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 [NASA-CASE-MSC-13530-2] c23 N75-14834
 Automated system for identifying traces of organic chemical compounds in aqueous solutions
 [NASA-CASE-NPO-13063-1] c25 N76-18245
 Electrophotolysis oxidation system for measurement of organic concentration in water
 [NASA-CASE-MSC-16497-1] c25 N79-23167
 Method for separating biological cells --- suspended in aqueous polymer systems
 [NASA-CASE-MFS-23883-1] c51 N80-16715
 Method of forming dynamic membrane on stainless steel support
 [NASA-CASE-MSC-18172-1] c26 N80-19237

Method of cross-linking polyvinyl alcohol and other water soluble resins
 [NASA-CASE-LEW-13103-1] c27 N80-32516

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 Development of device to prevent high voltage arcing in electron beam welding
 [NASA-CASE-INP-08522] c15 N71-19486
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 [NASA-CASE-XLA-03103] c25 N71-21693
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 [NASA-CASE-MFS-12233-1] c38 N74-15395
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 [NASA-CASE-LEW-12444-1] c33 N77-28385

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 [NASA-CASE-XLA-00330] c33 N70-34540
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 [NASA-CASE-XAC-00319] c25 N70-41628
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 [NASA-CASE-NPO-13528-1] c09 N77-10071

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 [NASA-CASE-LEW-11180-1] c25 N73-25760

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 [NASA-CASE-INP-01058] c09 N71-12540
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 [NASA-CASE-NPO-11510-1] c33 N77-21315
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 [NASA-CASE-NPO-10790-1] c33 N77-21316
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 [NASA-CASE-NPO-10870-1] c33 N77-22386
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 [NASA-CASE-NPO-11978] c31 N78-17238
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 [NASA-CASE-NPO-10857-1] c33 N80-14330

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 [NASA-CASE-INP-02039] c15 N71-15871
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 [NASA-CASE-MFS-13046] c07 N71-19433
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 [NASA-CASE-INP-08522] c15 N71-19486
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 [NASA-CASE-INP-07069] c15 N71-23815
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 [NASA-CASE-MSC-19095-1] c37 N75-19683

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 [NASA-CASE-MSC-12233-2] c32 N73-13921

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 [NASA-CASE-GSC-12223-1] c60 N79-27864

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 [NASA-CASE-LAR-10550-1] c09 N74-30597
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 [NASA-CASE-MFS-21611-1] c54 N75-12616
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 [NASA-CASE-IGS-05290] c09 N71-25999
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 [NASA-CASE-GSC-10607-1] c15 N72-20442
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[NASA-CASE-GSC-12582-1] c37 N81-16469
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- Ultraviolet and thermally stable polymer
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[NASA-CASE-ARC-10592-2] c27 N76-32315
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[NASA-CASE-GSC-11531-1] c52 N74-27566
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ion clouds in upper atmosphere and
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[NASA-CASE-NPO-15094-1] c33 N81-16386
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[NASA-CASE-XLA-00221] c02 N70-33266
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[NASA-CASE-XLA-00166] c02 N70-34178
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[NASA-CASE-XLA-00350] c02 N70-38011
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- Rapid, quantitative determination of bacteria in
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[NASA-CASE-GSC-12158-1] c51 N78-22585
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[NASA-CASE-INP-00840] c15 N70-38225
- Bearing seat usable in a gas turbine engine
[NASA-CASE-LEW-12477-1] c37 N77-32501
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[NASA-CASE-LAR-12077-1] c39 N79-25425
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[NASA-CASE-XLA-05332] c05 N71-11194
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[NASA-CASE-LAR-10007-1] c05 N71-11195
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radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
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pressurized suits to provide high degree of
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[NASA-CASE-ARC-10153] c05 N71-28619
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[NASA-CASE-ARC-11101-1] c54 N78-17675
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[NASA-CASE-ARC-11058-2] c54 N79-24651
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of space suit mounted to vacuum chamber wall
[NASA-CASE-IHF-07488] c11 N71-18773
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personnel and equipment across lunar surface
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- ASTRONAUT PERFORMANCE**
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permitting friction-free movement with five
degrees of freedom
[NASA-CASE-IHS-02977] c11 N71-10746
- Low and zero gravity simulator for astronaut
training
[NASA-CASE-NFS-10555] c11 N71-19494
- Apparatus for training astronaut crews to
perform on simulated lunar surface under
conditions of lunar gravity
[NASA-CASE-IHS-04798] c11 N71-21474
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- Three transceiver lunar emergency system to
relay voice communication of astronaut
[NASA-CASE-NFS-21042] c07 N72-25171
- Manual actuator --- for spacecraft exercising
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[NASA-CASE-NFS-21481-1] c37 N74-18127
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[NASA-CASE-INP-09572] c14 N71-15621
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- Cameras for photographing meteors in selected
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[NASA-CASE-LAR-10226-1] c14 N73-19419
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- Light sensitive control system for automatically
opening and closing dome of solar optical
telescope
[NASA-CASE-HSC-10966] c14 N71-19568
- Laser beam projector for continuous, precise
alignment between target, laser generator, and
astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
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for maintaining fixed images

ATMOSPHERIC COMPOSITION

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[NASA-CASE-NPS-23675-1] c89 N79-10969

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atmosphere sampling chambers
[NASA-CASE-NPO-11373] c13 N72-25323
Development and operation of apparatus for
sampling particulates in gases in upper
atmosphere
[NASA-CASE-BQN-10037-1] c14 N73-27376
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heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
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gases in the upper atmosphere
[NASA-CASE-NPO-14544-1] c74 N79-34014
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chromatography
[NASA-CASE-ARC-11154-1] c25 N80-23383

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atmospheric reentry, and landing at selected
sites
[NASA-CASE-IAC-02058] c02 N71-16087
Development of method for measuring electron
density gradients of plasma sheath around
space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563
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--- to provide range requirements for reentry
vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015

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simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
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around blunt vehicles entering planetary
atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436

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measuring intensity of electric field in
atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318

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employing reduced pressure atmospheric control
[NASA-CASE-NPO-14474-1] c26 N80-14229

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and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432

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[NASA-CASE-NPS-21244-1] c36 N75-15028

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[NASA-CASE-XMP-14032] c20 N71-16340
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[NASA-CASE-NPS-23178-1] c35 N77-10493

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including turbine pump, cooling chamber, and
atomizer
[NASA-CASE-NPO-10467] c23 N71-26654

ATS

Doppler frequency shift correction device for
multiplex communication with Applications
Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978

ATTACHMENT

Silicon carbide backward diode with coated lead
attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150

ATTENUATORS

Rotary vane attenuator with two stators and
intermediary rotor, using resistive and
orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420
Pulse transducer with artifact signal attenuator
--- heart rate sensors
[NASA-CASE-FRC-11012-1] c52 N80-23969

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Analog spatial maneuver computer with three
output angles for obtaining desired spatial
attitude

[NASA-CASE-GSC-10880-1] c08 N72-11172
Spacecraft attitude sensing system design with
narrow field of view sensor rotating about
spacecraft x-y axis
[NASA-CASE-GSC-10890-1] c21 N73-30640
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[NASA-CASE-NPO-13687-1] c35 N78-18391

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[NASA-CASE-XMS-12158-1] c31 N69-27499
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[NASA-CASE-XFB-00181] c21 N70-33279
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orientation of space vehicle or satellite by
using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
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liquid propellant rocket vehicles
[NASA-CASE-XNP-00185] c21 N70-34539
Spacecraft attitude control system using solar
and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395
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[NASA-CASE-XNP-00294] c21 N70-36938
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final stage space vehicles, using horizon
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[NASA-CASE-XLA-00281] c21 N70-36943
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and midcourse guidance of space vehicles
[NASA-CASE-XNP-00676] c15 N70-38996
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motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581
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permitting friction-free movement with five
degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
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spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771
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frictionless supported attitude-controlled
test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
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and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132
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[NASA-CASE-XGS-04393] c21 N71-14159
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vehicles by secondary injection of fluid into
nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582
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[NASA-CASE-XNP-01598] c21 N71-15583
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stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
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finger tips for manual control of spacecraft
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[NASA-CASE-XAC-02405] c09 N71-16089
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nozzle in movable canard surface or fin
configuration
[NASA-CASE-XLE-03583] c31 N71-17629
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detecting orientation of space vehicle with
respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
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sounding rocket stabilization during ballistic
phase of flight
[NASA-CASE-XGS-01654] c31 N71-24750
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controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160
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[NASA-CASE-LAR-10586-1] c19 N74-15089
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 engine pressure ratio feedback signals
 [NASA-CASE-LAR-12562-1] c08 N79-20135
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 [NASA-CASE-LAR-11970-2] c08 N81-19130
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 and earth sensors, gyroscopes, and jet actuators
 [NASA-CASE-NPO-00465] c21 N70-35395
 Attitude control system
 [NASA-CASE-NFS-22787-1] c15 N77-10113
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 unmanned spacecraft deviation from reference
 attitude
 [NASA-CASE-XNP-00438] c21 N70-35089
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 respectively perpendicular axes and capable of
 actuating signal generators for attitude
 control devices
 [NASA-CASE-XMS-07487] c15 N71-23255
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 indicating instrument for use in aircraft or
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 [NASA-CASE-XLA-01907] c14 N71-23268
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 [NASA-CASE-BBC-10392] c21 N73-14692
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 [NASA-CASE-LAR-10586-1] c19 N74-15089
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 [NASA-CASE-NFS-22905-1] c19 N76-22284
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 vehicles by using rate gyroscope and angular
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 [NASA-CASE-XLA-01989] c21 N70-34295
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 vehicle with respect to trajectory
 [NASA-CASE-ABC-10134] c30 N72-17873
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 [NASA-CASE-GSC-12551-1] c18 N81-12156
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 [NASA-CASE-NPO-11631] c10 N73-12244
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 [NASA-CASE-GSC-10668-1] c07 N71-28430
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 [NASA-CASE-NPO-11147] c14 N72-27408
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 [NASA-CASE-XAC-05632] c32 N71-23971
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 positioning equipment for spacecraft
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vehicles by providing lifting surfaces on
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[NASA-CASE-XMF-00389] c31 N70-34176
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[NASA-CASE-XMF-01973] c31 N70-41588
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[NASA-CASE-XMF-01973] c31 N70-41588
- BOOTS (FOOTWEAR)**
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Cesium thermionic converters having improved
electrodes
[NASA-CASE-LEW-12038-3] c44 N78-25555
- BORING MACHINES**
Automatic controlled drive mechanism for
portable boring bar
[NASA-CASE-XLA-03661] c15 N71-33518
- Borehole geological assessment
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for stabilizing gate threshold potential of
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[NASA-CASE-IEQ-03903] c15 N69-21922
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materials and method of applying same in glow
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[NASA-CASE-XLA-01290] c02 N70-42016
- Aerodynamic side-force alleviator means
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- Controlled separation combustor --- airflow
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[NASA-CASE-IFR-02007] c12 N71-24692
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[NASA-CASE-XLB-05230] c14 N72-27410
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[NASA-CASE-NPS-20075] c09 N71-26133
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[NASA-CASE-FRC-11044-1] c07 N80-21327
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land payload recovery or vehicle braking
[NASA-CASE-XLA-00754] c15 N70-34850
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[NASA-CASE-XKS-07814] c15 N71-27067
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[NASA-CASE-LAR-12372-1] c37 N80-18399
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regenerative braking of electric motor
[NASA-CASE-XMF-01096] c10 N71-16030
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wrapped primary coil producing constant
braking force on secondary coil
[NASA-CASE-XLB-05079] c15 N71-17652
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titanium and zirconium for surface pretreatment
[NASA-CASE-XMS-03537] c15 N69-21471
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[NASA-CASE-XLB-00046] c15 N70-33311
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[NASA-CASE-XMF-03063] c17 N71-23365
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[NASA-CASE-XMF-05868] c26 N75-27125
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continuously suitable for manned space flight
[NASA-CASE-IAC-01158] c15 N71-23051
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[NASA-CASE-MSC-14733-1] c54 N76-24900
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[NASA-CASE-MSC-16182-1] c54 N80-10799
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container folded from flat sheet and filled
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beam from high temperature source by
servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
- BRIGHTNESS DISCRIMINATION**
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video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
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[NASA-CASE-ABC-10329-1] c05 N73-26072
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[NASA-CASE-XMS-05303] c07 N69-27462
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[NASA-CASE-HSC-12101] c09 N71-18720
Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583
Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808
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[NASA-CASE-NPO-10548] c16 N71-24831
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[NASA-CASE-XLA-03893] c10 N71-27271
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[NASA-CASE-NPO-14588-1] c32 N79-17067
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[NASA-CASE-NPO-13217-1] c32 N75-26194
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[NASA-CASE-XNP-01016] c26 N71-17818
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[NASA-CASE-XNP-04162-1] c08 N70-34675
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[NASA-CASE-XNP-01899] c31 N70-41948
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[NASA-CASE-XMS-00893] c07 N70-40063
- High visibility air sea rescue panel
[NASA-CASE-HSC-12564-2] c03 N78-25070
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[NASA-CASE-NPO-14103-1] c28 N78-31255
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[NASA-CASE-XHQ-01897] c28 N70-35381
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[NASA-CASE-ARC-11116-1] c33 N79-31498
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[NASA-CASE-XLE-00144] c28 N70-34860
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[NASA-CASE-XNP-00640] c15 N70-39924
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[NASA-CASE-XMS-01330] c37 N75-27376
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[NASA-CASE-XLE-00101] c15 N70-33376
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[NASA-CASE-XGS-04999] c09 N69-24317
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[NASA-CASE-XGS-02816] c07 N69-24323
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[NASA-CASE-MPS-20935] c09 N71-34212
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C

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[NASA-CASE-HSC-12052-1] c15 N71-24599
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[NASA-CASE-LAR-10129-1] c15 N73-25512
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[NASA-CASE-MPS-22636-1] c37 N76-22540
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[NASA-CASE-XNP-00738] c09 N70-38201
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[NASA-CASE-XLA-02332] c32 N71-17609
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[NASA-CASE-XNP-07587] c15 N71-18701
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[NASA-CASE-XGS-02554] c31 N71-21064
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[NASA-CASE-XFB-05421] c15 N71-22994
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 displacement of bodies
 [NASA-CASE-XLA-00781] c09 N71-22999
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 [NASA-CASE-XMP-01660] c14 N71-23036
- Control system for pressure balance device used
 in calibrating pressure gages
 [NASA-CASE-XMP-04134] c14 N71-23755
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 [NASA-CASE-XKS-10804] c05 N71-24606
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 [NASA-CASE-XLA-03410] c16 N71-25914
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 and partial pressures in ultrahigh vacuum region
 [NASA-CASE-XGS-07752] c14 N73-30390
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 [NASA-CASE-LAR-10910-1] c35 N74-13132
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 [NASA-CASE-LAR-10862-1] c35 N74-15092
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 [NASA-CASE-MPS-21045-1] c35 N75-15932
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 [NASA-CASE-LAR-11435-1] c35 N76-15432
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 [NASA-CASE-LAR-11500-1] c35 N76-24523
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 [NASA-CASE-LAR-12230-1] c35 N79-14347
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 [NASA-CASE-XMP-04494-1] c33 N79-33392
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 with integral heat sink for maintenance of
 constant temperature
 [NASA-CASE-XMP-04208] c33 N71-29051
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 [NASA-CASE-MPS-23923-1] c35 N81-19426
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 [NASA-CASE-XMP-00637] c14 N70-40273
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 [NASA-CASE-XLA-03660] c15 N71-21060
- Development and characteristics of cyclically
 operable, optical shutter for use as focal
 plane shutter for transmitting single
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 [NASA-CASE-NPO-10758] c14 N73-14427
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 rotary inertia damper and stop plate assembly
 --- for use with cameras mounted in satellites
 [NASA-CASE-GSC-11560-1] c33 N74-20861
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 [NASA-CASE-XLA-01987] c23 N71-23976
- Camera adapter design for image magnification
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 [NASA-CASE-XMP-03844-1] c14 N71-26474
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 securing film in motion picture cameras under
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 [NASA-CASE-LAR-10686] c14 N71-28935
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 wavelength of laser light
 [NASA-CASE-NPO-10417] c16 N71-33410
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 [NASA-CASE-NPO-11002] c14 N72-22441
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 camera lens aperture and focus setting
 [NASA-CASE-MSC-12363-1] c14 N73-26431
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 preventing film overexposure in oscilloscope
 camera
 [NASA-CASE-LAR-10319-1] c14 N73-32322
- Real time moving scene holographic camera system
 [NASA-CASE-MPS-21087-1] c35 N74-17153
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 [NASA-CASE-LAR-11213-1] c35 N75-15014
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 [NASA-CASE-LAR-11207-1] c35 N75-19613
- Real time, large volume, moving scene
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 [NASA-CASE-MPS-22537-1] c35 N75-27328
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 [NASA-CASE-MPS-22517-1] c35 N76-18402
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 earth or sky
 [NASA-CASE-GSC-12032-2] c35 N76-19408
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 [NASA-CASE-LBW-13050-1] c07 N79-14095
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 nozzle in movable canard surface or fin
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 [NASA-CASE-XLE-03583] c31 N71-17629
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 [NASA-CASE-LAR-11932-1] c05 N78-32086
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 radiation applicator for use in the treatment
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 [NASA-CASE-GSC-12081-2] c52 N77-26796
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 [NASA-CASE-NPO-13935-1] c52 N79-14751
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 [NASA-CASE-ARC-10813-1] c27 N76-16230
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 canisters under high vacuum conditions

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[NASA-CASE-XLA-01446] c15 N71-21528
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[NASA-CASE-NPO-10812] c15 N73-13464

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[NASA-CASE-XLA-01731] c32 N71-21045
Cantilever mounted resilient pad gas bearing
[NASA-CASE-LEW-12569-1] c37 N79-10418

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[NASA-CASE-NPO-10883] c31 N72-22874
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[NASA-CASE-LAB-11648-1] c35 N77-14407

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Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785
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[NASA-CASE-XAC-04885] c14 N71-23790
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[NASA-CASE-NPO-10607] c09 N71-27232
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[NASA-CASE-MFS-21629] c14 N72-22442
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[NASA-CASE-NPO-11948-1] c33 N74-32712
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[NASA-CASE-NPO-13792-1] c35 N77-32455
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[NASA-CASE-XNP-02899-1] c33 N79-21265

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[NASA-CASE-XNP-00375] c15 N70-34249
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[NASA-CASE-XGS-00381] c09 N70-34819
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[NASA-CASE-XAC-10607] c10 N71-23669

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[NASA-CASE-XNP-09750] c14 N69-39937
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[NASA-CASE-XNP-00517] c03 N70-34157
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[NASA-CASE-XLB-00143] c14 N70-36618
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[NASA-CASE-XLA-01987] c23 N71-23976
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[NASA-CASE-KSC-10162] c09 N72-11225
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[NASA-CASE-ARC-10138-1] c14 N72-24477
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[NASA-CASE-XLB-03307] c33 N71-14035
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[NASA-CASE-XNP-03972] c15 N71-23048
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[NASA-CASE-XLA-08911] c15 N71-27214
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[NASA-CASE-LAB-11726-1] c37 N76-27568

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[NASA-CASE-NPO-10117] c15 N71-15608
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[NASA-CASE-XMS-13052] c14 N71-20427
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COLD WELDING

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[NASA-CASE-NPO-11036] c15 N72-24522
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[NASA-CASE-INP-05415] c08 N71-12505

Pulsed magnetic core memory element with blocking oscillator feedback for interrogation without loss of digital information
[NASA-CASE-IGS-03303] c08 N71-18595

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 [NASA-CASE-LEW-12907-2] c07 N81-19115
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 [NASA-CASE-XLE-00715] c15 N70-34859
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[NASA-CASE-KSC-10729-1] c09 N73-32110

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[NASA-CASE-MSC-12398] c05 N72-20098

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[NASA-CASE-LEW-11087-2] c37 N74-15128

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a laminated core section and tapered gap
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surfaces and method for applying the same
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Correlation type phase detector --- with time
correlation integrator for frequency
multiplexed signals
[NASA-CASE-GSC-11744-1] c33 N75-26243

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[NASA-CASE-NPO-14035-1] c32 N78-18266

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[NASA-CASE-XNP-09832] c30 N71-23723

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[NASA-CASE-KSC-11025-1] c32 N79-28383

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carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075

Method to prevent stress corrosion cracking in
titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393

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corrosion
[NASA-CASE-XLA-07390] c15 N71-18616

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oxidation of beryllium surfaces at elevated
temperatures
[NASA-CASE-LEW-10327] c17 N71-33408

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strength steel by hydrazine compositions ---
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[NASA-CASE-NPO-12122-1] c24 N76-14203

Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c45 N80-14579

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alloys for aerospace structures
[NASA-CASE-XLE-00726] c17 N71-15644

Hydrazine monoperfluoro alkanoate solder flux
leaving corrosion resistant coating, for
metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688

High temperature cobalt-base alloy resistant to
corrosion by liquid metals and to sublimation
in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025

Metal soldering with hydrazine monoperfluoro
alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078

Improved nozzle for use with abrasive and/or
corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466

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COSINE SERIES

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[NASA-CASE-MSC-13802-2] c35 N76-15431

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[NASA-CASE-NPO-13579-1] c44 N78-17460

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[NASA-CASE-ARC-11243-2] c23 N80-31472

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[NASA-CASE-IMS-01240] c05 N70-35152

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[NASA-CASE-MSC-12279-1] c15 N70-35679

Shock absorbing articulated multiple couch assembly
[NASA-CASE-MSC-11253] c05 N71-12343

Collapseable couch system for manned space vehicles
[NASA-CASE-MSC-13140] c05 N72-11085

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Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
[NASA-CASE-IGS-05434] c03 N71-20491

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[NASA-CASE-INP-06234] c10 N71-27137

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[NASA-CASE-LAR-10756-1] c32 N73-26910

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[NASA-CASE-LAR-11922-1] c25 N79-24073

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[NASA-CASE-LAR-12474-1] c35 N80-31774

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[NASA-CASE-NPO-14162-1] c60 N81-15706

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Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
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Design of transistorized ring counter circuit with special steering and triggering circuits
[NASA-CASE-IGS-03095] c09 N69-27463

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[NASA-CASE-INP-00421] c09 N70-34502

Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-IGS-01473] c09 N71-10673

Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797

Electronic counter circuit utilizing magnetic core and low power consumption
[NASA-CASE-INP-08836] c09 N71-12515

Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-IGS-02440] c08 N71-19432

Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also

converting rate to beats per minute
[NASA-CASE-IMS-02399] c05 N71-22896

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[NASA-CASE-INP-01753] c08 N71-22897

Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-INP-09759] c08 N71-24891

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[NASA-CASE-MSC-14649-1] c33 N76-16331

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[NASA-CASE-NPO-11059] c15 N72-17454

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[NASA-CASE-IGS-03058] c10 N71-19547

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[NASA-CASE-GSC-10220-1] c07 N71-27233

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[NASA-CASE-MSC-13201-1] c07 N71-28429

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[NASA-CASE-GSC-10668-1] c07 N71-28430

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[NASA-CASE-MPS-21660-1] c35 N74-21017

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[NASA-CASE-GSC-12595-1] c33 N81-12331

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[NASA-CASE-IMS-07846-1] c09 N69-21927

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[NASA-CASE-XLA-02854] c15 N69-27490

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[NASA-CASE-XLA-01441] c15 N70-41679

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[NASA-CASE-IMS-02532] c15 N70-41808

Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-IMS-01985] c15 N71-10782

Ratchet mechanism for high speed operation at reduced backlash
[NASA-CASE-MPS-12805] c15 N71-17805

Split nut and bolt separation device
[NASA-CASE-INP-06914] c15 N71-21489

Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MPS-20395] c15 N71-24903

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[NASA-CASE-NPO-13504-1] c33 N75-30430

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[NASA-CASE-GSC-12059-1] c35 N77-27366

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[NASA-CASE-GSC-12429-1] c37 N81-14320

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DATA SMOOTHING

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DENSITY MEASUREMENT
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 [NASA-CASE-LAR-11237-1] c35 N75-19612
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[NASA-CASE-MPS-21629] c14 N72-22442
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[NASA-CASE-LEW-11583-1] c35 N79-17192

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Fabricating solar cells with dielectric layers to improve glass fusion
[NASA-CASE-XGS-04531] c03 N69-24267
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[NASA-CASE-XMP-09750] c14 N69-39937
Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XMP-00517] c03 N70-34157
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[NASA-CASE-XMS-04312] c07 N71-22984
Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XMP-08880] c09 N71-24808
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[NASA-CASE-BQH-10541-2] c15 N71-27135
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[NASA-CASE-XER-08476-1] c26 N72-17820
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[NASA-CASE-XMP-05297] c15 N71-23811
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[NASA-CASE-XLE-06773] c15 N71-23817
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[NASA-CASE-GSC-12619-1] c37 N81-16470

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[NASA-CASE-NPO-12119-1] c52 N75-15270

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[NASA-CASE-IAC-00435] c09 N70-35440
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[NASA-CASE-GSC-10366-1] c10 N71-18772
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[NASA-CASE-MPS-23775-1] c35 N80-17421

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Device for determining acceleration of gravity by interferometric measurement of travel of falling body
[NASA-CASE-XMP-05844] c14 N71-17587

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Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924
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[NASA-CASE-ERC-10001] c23 N71-24868

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[NASA-CASE-INP-05231] c14 N73-28491

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[NASA-CASE-LAR-10385-3] c74 N78-15879

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[NASA-CASE-GSC-10303] c15 N72-22487
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[NASA-CASE-MFS-20482] c15 N72-22492
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[NASA-CASE-LBW-11388-1] c15 N73-32358
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[NASA-CASE-NPO-11088] c08 N71-29034

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[NASA-CASE-LAR-10590-1] c15 N70-26819
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[NASA-CASE-NPO-10112] c08 N71-12502
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[NASA-CASE-INP-05415] c08 N71-12505
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[NASA-CASE-XKS-08012-2] c31 N71-15566
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[NASA-CASE-INP-02748] c08 N71-22749
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[NASA-CASE-NPO-10150] c08 N71-24650
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[NASA-CASE-INP-01012] c08 N71-28925
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[NASA-CASE-GSC-10564] c10 N71-29135
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[NASA-CASE-MSC-12531-1] c35 N75-30504
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[NASA-CASE-GSC-11839-2] c60 N78-10709

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[NASA-CASE-INP-00911] c08 N70-41961
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[NASA-CASE-INP-09453] c08 N71-19420
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[NASA-CASE-XGS-01812] c07 N71-23001
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[NASA-CASE-INP-01068] c10 N71-28739
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[NASA-CASE-NPO-10844] c07 N72-20140
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[NASA-CASE-NPO-11088] c08 N71-29034
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[NASA-CASE-KSC-11008-1] c33 N79-22373

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[NASA-CASE-NPO-14054-1] c32 N79-14278

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[NASA-CASE-INP-01472] c14 N70-41807

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[NASA-CASE-XGS-00359] c14 N70-34158
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[NASA-CASE-XGS-00689] c08 N70-34787
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[NASA-CASE-XGS-01812] c07 N71-23001
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[NASA-CASE-INP-01318] c10 N71-23033
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[NASA-CASE-INP-09759] c08 N71-24891
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[NASA-CASE-INP-01466] c10 N71-26434
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[NASA-CASE-NPO-11130] c08 N72-20176
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[NASA-CASE-GSC-10975-1] c08 N73-13187
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[NASA-CASE-NPO-11569] c10 N73-26229
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[NASA-CASE-NPO-13982-1] c32 N79-14267
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[NASA-CASE-MPS-14322] c08 N71-18692
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[NASA-CASE-ILA-07732] c08 N71-18751
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[NASA-CASE-NPO-06957] c14 N71-21088
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predetermined portion of one minute also
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[NASA-CASE-XMS-02399] c05 N71-22896
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in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
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one photomultiplier tube to eliminate
alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215
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[NASA-CASE-LAR-10128-1] c08 N73-20217
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[NASA-CASE-MSC-12458-1] c08 N73-32081
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[NASA-CASE-ARC-11036-1] c35 N78-32395

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polyurethane polymer prepared by reacting
hydroxy carbonate with organic diisocyanate
[NASA-CASE-MPS-10512] c06 N73-30099
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reacting polymer with diisocyanate
[NASA-CASE-MPS-10506] c06 N73-30100
Preparation of polyurethane polymer by reacting
hydroxy polyformal with organic diisocyanate
[NASA-CASE-MPS-10509] c06 N73-30103

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perspective
[NASA-CASE-MPS-23194-1] c35 N78-17357

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with open connection using shunting diode
[NASA-CASE-XLE-04535] c03 N71-23354
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[NASA-CASE-BRC-10119] c26 N72-21701
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[NASA-CASE-GSC-10878-1] c10 N72-22236
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[NASA-CASE-BRC-10325] c15 N72-25457
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maintaining luminous intensity independent of
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[NASA-CASE-BRC-10224-2] c09 N73-27150
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[NASA-CASE-NPO-13081-1] c33 N74-22814
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[NASA-CASE-GSC-12145-1] c33 N78-32339
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[NASA-CASE-LEW-12791-1] c33 N78-32341
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[NASA-CASE-GSC-12168-1] c31 N79-17029
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lighting equipment
[NASA-CASE-PHC-11014-1] c33 N79-27395

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Circularly polarized antenna with linearly
polarized pair of elements
[NASA-CASE-BRC-10214] c09 N72-31235
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[NASA-CASE-MSC-18606-1] c32 N80-24511

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[NASA-CASE-XGS-03429] c03 N69-21330
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current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
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temperature region to chop current from dc
source
[NASA-CASE-NPO-10404] c03 N71-12255
Transistorized dc-coupled multivibrator with
noninverted output signal
[NASA-CASE-INP-09450] c10 N71-18723
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windings in proper time sequence to cause
motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772

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Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418

Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693

Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-IMP-14301] c09 N71-23188

Converting output of positive dc voltage source to negative dc voltage across load with common reference point
[NASA-CASE-IMP-08217] c03 N71-23239

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[NASA-CASE-XMS-06061] c05 N71-23317

Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
[NASA-CASE-XGS-01418] c09 N71-23573

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MPS-20385] c09 N71-24904

Inverters for changing direct current to alternating current
[NASA-CASE-XGS-06226] c10 N71-25950

Circuits for controlling reversible dc motor
[NASA-CASE-IMP-07477] c09 N71-26092

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[NASA-CASE-MPS-14610] c09 N71-28886

High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
[NASA-CASE-LEW-10155-1] c09 N71-29035

Power converters for supplying direct current at one voltage from source at another voltage
[NASA-CASE-XER-11046] c09 N72-22203

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[NASA-CASE-GSC-11126-1] c09 N72-25253

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[NASA-CASE-XGS-07805] c15 N72-33476

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[NASA-CASE-MSC-12396-1] c03 N73-31988

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[NASA-CASE-ARC-10596-1] c33 N74-21851

Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage
[NASA-CASE-XER-11046-2] c33 N74-22864

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[NASA-CASE-MSC-12506-1] c32 N77-12239

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[NASA-CASE-GSC-11824-1] c33 N77-26386

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[NASA-CASE-GSC-12228-1] c33 N79-10338

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[NASA-CASE-MPS-23659-1] c33 N79-17133

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[NASA-CASE-NPO-14505-1] c33 N81-19393

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[NASA-CASE-NPO-13970-1] c33 N81-20352

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A velocity vector control system augmented with direct lift control --- stability augmentation using manual control
[NASA-CASE-LAR-12268-1] c08 N79-20136

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Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
[NASA-CASE-XLB-00212] c03 N70-34134

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[NASA-CASE-XLA-00377] c33 N71-17610

Converting output of positive dc voltage source to negative dc voltage across load with common reference point
[NASA-CASE-IMP-08217] c03 N71-23239

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Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment
[NASA-CASE-XER-10125] c09 N71-24893

Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage
[NASA-CASE-XER-11046-2] c33 N74-22864

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Mechanical coordinate converter for use with spacecraft tracking antennas
[NASA-CASE-IMP-00614] c14 N70-36907

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[NASA-CASE-IXS-08485] c07 N71-19493

Tracking antenna system with array for synchronous satellite or ground based radar
[NASA-CASE-GSC-10553-1] c07 N71-19854

Drive system for parabolic tracking antenna with reversible motion and minimal backlash
[NASA-CASE-NPO-10173] c15 N71-24696

Variable beamwidth antenna --- with multiple beam, variable feed system
[NASA-CASE-GSC-11862-1] c32 N76-18295

An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

DIRECTIONAL CONTROL

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[NASA-CASE-IMP-01544] c28 N70-34162

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[NASA-CASE-MPS-21309-1] c37 N74-18125

A velocity vector control system augmented with direct lift control --- stability augmentation using manual control
[NASA-CASE-LAR-12268-1] c08 N79-20136

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Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown
[NASA-CASE-MPS-23816-1] c26 N80-23419

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Hose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control
[NASA-CASE-XLA-01804] c02 N70-34160

System for imposing directional stability on a rocket-propelled vehicle
[NASA-CASE-MPS-21311-1] c20 N76-21275

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[NASA-CASE-GSC-12608-1] c35 N81-12387

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Patent data on gas actuated bolt disconnect assembly
[NASA-CASE-XLA-00326] c03 N70-34667

Remotely actuated quick disconnect mechanism for umbilical cables
[NASA-CASE-XLA-00711] c03 N71-12258

Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XLA-01396] c03 N71-12259

Design and development of quick release connector
[NASA-CASE-XLA-01141] c15 N71-13789

Split nut and bolt separation device
[NASA-CASE-IMP-06914] c15 N71-21489

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[NASA-CASE-IXS-04631] c10 N71-23663

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[NASA-CASE-MPS-20395] c15 N71-24903

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[NASA-CASE-NPO-11140] c15 N72-17455

Torsional disconnect device for releasably coupling distal ends of fluid conduits
[NASA-CASE-NPO-10704] c15 N72-20445

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[NASA-CASE-MSC-11849-1] c15 N72-22488

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[NASA-CASE-NPO-11202] c15 N72-25450

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[NASA-CASE-MSC-16043-1] c37 N79-11402
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Servocontrol system for measuring local stresses at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360
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[NASA-CASE-XNP-00701] c09 N70-40272
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[NASA-CASE-XNP-08274] c10 N71-13537
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[NASA-CASE-MFS-14322] c08 N71-18692
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[NASA-CASE-XNP-04819] c08 N71-23295
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[NASA-CASE-ARC-10364-3] c33 N75-19520
- Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041
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[NASA-CASE-NPO-14311-1] c32 N79-14276
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[NASA-CASE-MFS-20829] c12 N72-21310
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[NASA-CASE-MFS-21115-1] c54 N74-12779
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[NASA-CASE-LAB-10544-1] c37 N74-13178
- Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MFS-21163-1] c54 N74-17853
- Automatic fluid dispenser
[NASA-CASE-ARC-10820-1] c35 N78-19466
- DISPERSING**
Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
[NASA-CASE-XLB-04946] c17 N71-24911
- DISPERSIONS**
Method for producing alkali metal dispersions of high purity
[NASA-CASE-XNP-08876] c17 N73-28573
- DISPLACEMENT**
Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
[NASA-CASE-ARC-10441-1] c35 N74-15126
- DISPLACEMENT MEASUREMENT**
Null-type vacuum microbalance for measuring minute mechanical displacements
[NASA-CASE-IAC-00472] c15 N70-40180
- Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999
- Gas bearing for model support with capacity for measuring angular displacement of model in bearing
[NASA-CASE-XLA-09346] c15 N71-28740
- Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
[NASA-CASE-NPO-10778] c14 N72-11364
- Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
- Simultaneous muscle force and displacement transducer
[NASA-CASE-NPO-14212-1] c52 N80-27072
- DISPLAY DEVICES**
Integrated time shared instrumentation display for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507
- Data processing and display system for terminal guidance of X-15 aircraft
[NASA-CASE-YPR-00756] c02 N71-13421
- Fluidic-thermochromic display device
[NASA-CASE-ERC-10031] c12 N71-18603
- Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571
- Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
- Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
- Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544
- Plasma-fluidic hybrid display system combining high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519
- System for digitizing graphic displays
[NASA-CASE-NPO-10745] c08 N72-22164
- Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248
- Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft
[NASA-CASE-MSC-12372-1] c31 N72-25842
- Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
- Device for displaying and recording angled views of samples to be viewed by microscope
[NASA-CASE-GSC-11690-1] c14 N73-28499
- Transparent switchboard which permits optical display devices to be adapted for use in man machine communications
[NASA-CASE-MSC-13746-1] c10 N73-32143
- Recorder/processor apparatus --- for optical data processing
[NASA-CASE-GSC-11553-1] c35 N74-15831
- Rotating raster generator
[NASA-CASE-FRC-10071-1] c32 N74-20813
- G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
- X-Y alphanumeric character generator for oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517
- Binocular device for displaying numerical information in field of view
[NASA-CASE-LAB-11782-1] c74 N77-20882
- Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLB-06094] c33 N78-17293
- Projection system for display of parallax and perspective
[NASA-CASE-MFS-23194-1] c35 N78-17357
- Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
- Chromatically corrected virtual image display --- lens design for flight simulators
[NASA-CASE-LAB-12251-1] c74 N79-14892
- Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580
- System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856
- A system for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation
[NASA-CASE-FRC-11005-1] c06 N79-24988
- Power converter --- for display devices, lighting equipment
[NASA-CASE-FRC-11014-1] c33 N79-27395
- Environmental fog/rain visual display system for aircraft simulators

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[NASA-CASE-ARC-11158-1] c09 N79-33220
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variable spatial resolution
[NASA-CASE-LAR-12633-1] c35 N80-22661
Chromatically corrected virtual image visual
display --- reducing eye strain in flight
simulators
[NASA-CASE-LAR-12251-1] c74 N80-27185
System for a displaying at a remote station data
generated at a central station and for
powering the remote station from the central
station
[NASA-CASE-GSC-12411-1] c33 N81-14221

DISSIPATION
Dissipative voltage regulator system for
minimizing heat dissipation
[NASA-CASE-GSC-10891-1] c10 N71-26626

DISSOCIATION
Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607

DISSOLVING
Apparatus for mixing two or more liquids under
zero gravity conditions
[NASA-CASE-LAR-10195-1] c15 N73-19458

DISTANCE MEASURING EQUIPMENT
Binary coded sequential acquisition ranging
system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209
Apparatus for determining distance to lighting
strokes from single station by magnetic and
electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175

DISTILLATION EQUIPMENT
Utilization of solar radiation by solar still
for converting salt and brackish water into
potable water
[NASA-CASE-XNS-04533] c15 N71-23086
Purification apparatus for vaporization and
fractional distillation of liquids
[NASA-CASE-INP-08124] c15 N71-27184
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purification of liquid metals
[NASA-CASE-INP-08124-2] c06 N73-13129

DISTRIBUTED AMPLIFIERS
Broadband distribution amplifier with
complementary pair transistor output stages
[NASA-CASE-NPO-10003] c10 N71-26415

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High voltage distributor
[NASA-CASE-GSC-11849-1] c33 N76-16332

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[NASA-CASE-LBW-11286-1] c07 N74-27490

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Flow diverter valve and flow diversion method
[NASA-CASE-HQN-00573-1] c37 N79-33468

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A synchronous binary array divider
[NASA-CASE-ERC-10180-1] c60 N74-20836

DOCUMENT STORAGE
Describing device for flagging punched business
cards
[NASA-CASE-XLA-02705] c08 N71-15908

DOORS
Design and specifications of emergency escape
system for spacecraft structures
[NASA-CASE-HSC-12086-1] c05 N71-12345
Fiberglass/epoxy composite automotive door
structure including a glass-reinforced
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[NASA-CASE-NPO-15057-1] c24 N81-19230

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multiplex communication with Applications
Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978
Describing laser Doppler velocimeter for
measuring mean velocity and turbulence of
fluid flow
[NASA-CASE-NPS-20386] c21 N71-19212
Doppler compensated communication system for
locating supersonic transport position
[NASA-CASE-GSC-10087-4] c07 N73-20174
Doppler shift system --- system for measuring
velocities of radiating particles
[NASA-CASE-HQN-10740-1] c72 N74-19310
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modulation of radiation
[NASA-CASE-NPO-14524-1] c32 N80-24510

An electro-optical Doppler tracker means and
method for optical correlation of synthetic
aperture radar data
[NASA-CASE-NPO-14998-1] c33 N81-15194

DOPPLER RADAR
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midair collisions
[NASA-CASE-LAR-10403] c21 N71-11766
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radar processor for imaging separate range
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[NASA-CASE-NPO-14525-2] c32 N80-32607

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dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
Miniature spectrally selective dosimeter
[NASA-CASE-LAR-12469-1] c35 N81-12388

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Deployment system for flexible wing with rigid
superstructure
[NASA-CASE-XLA-01220] c02 N70-41863
Lightweight, variable solidity knitted parachute
fabric --- for aerodynamic decelerators
[NASA-CASE-LAR-10776-1] c02 N74-10034

DRAW MEASUREMENT
Device for measuring drag forces in flight tests
[NASA-CASE-XLA-00113] c14 N70-33386
Electric analog for measuring induced drag on
nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410
Electric analog for measuring induced drag on
nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411
Impact energy absorber with decreasing
absorption rate
[NASA-CASE-XLA-01530] c14 N71-23092
System for use in conducting wake investigation
for a wing in flight --- differential pressure
measurements for drag investigations
[NASA-CASE-FRC-11024-1] c02 N80-28300
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[NASA-CASE-FRC-11029-1] c06 N81-17057

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loading control
[NASA-CASE-XAC-00139] c02 N70-34856
Aircraft wheel spray drag alleviator for dual
tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
Improved method for driving two-phase turbines
with enhanced efficiency
[NASA-CASE-NPO-15037-1] c37 N80-26660
Improved low-drag ground vehicle particularly
suited for use in safely transporting livestock
[NASA-CASE-FRC-11058-1] c85 N80-33312
Leading edge vortex flaps for drag reduction ---
during subsonic flight
[NASA-CASE-LAR-12750-1] c02 N81-19016

DRIFT (INSTRUMENTATION)
Automatic measuring and recording of gain and
zero drift characteristics of electronic
amplifier
[NASA-CASE-XNS-05562-1] c09 N69-39986
Solar radiation direction detector and device
for compensating degradation of photocells
[NASA-CASE-XLA-00183] c14 N70-40239
Failure detection and control means for improved
drift performance of a gimbaled platform system
[NASA-CASE-NPS-23551-1] c04 N76-26175

DRILL BITS
Impact bit for cutting, collecting, and storing
samples such as lunar rock cuttings
[NASA-CASE-INP-01412] c15 N70-42034
Hole cutter --- drill bits and rotating shaft
[NASA-CASE-NPS-22649-1] c37 N75-25186

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[NASA-CASE-GSC-12636-1] c37 N80-29705

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Rotary impact-type rock drill for recovering
rock cuttings
[NASA-CASE-INP-07478] c14 N69-21923
Auger-type soil penetrometer for burrowing into
soil formations
[NASA-CASE-INP-05530] c14 N73-32321

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[NASA-CASE-LBW-10233] c10 N71-27126

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DROPS (LIQUIDS)

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[NASA-CASE-NPO-10985] c14 N73-20478
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[NASA-CASE-NPO-14845-1] c31 N81-16328

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Automated analysis of oxidative metabolites
[NASA-CASE-ARC-10469-1] c25 N75-12086

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[NASA-CASE-GSC-11074-1] c14 N73-28489

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Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080

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Cam-operated pitch-change apparatus
[NASA-CASE-LEW-13050-1] c07 N79-14095

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Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MFS-20395] c15 N71-24903
Externally supported internally stabilized flexible duct joint
[NASA-CASE-MFS-19194-1] c37 N76-14460
Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c31 N80-32583

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Belt for transmitting power from a cogged driving member to a cogged driven member
[NASA-CASE-GSC-12289-1] c37 N80-32717

DUST COLLECTIONS

Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
[NASA-CASE-LAR-10590-1] c15 N70-26819

DYE LASERS

Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ARC-10463-1] c09 N73-32111
Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp
[NASA-CASE-LAR-11341-1] c36 N75-19655

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[NASA-CASE-XMF-02221] c18 N71-27170

DYNAMIC CHARACTERISTICS

Dynamic sensor for gas pressure or density measurement
[NASA-CASE-XAC-02877] c14 N70-41681
Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397

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Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

DYNAMIC LOADS

Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
[NASA-CASE-XLA-01326] c11 N71-21481
Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-XMS-04545] c15 N71-22878
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[NASA-CASE-MSC-15626-1] c14 N72-25411

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Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
[NASA-CASE-XLB-01300] c15 N70-41993

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[NASA-CASE-XLA-00493] c11 N70-34786
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[NASA-CASE-XLA-05541] c12 N71-26387
Response analyzing apparatus for liquid vapor interface sensor of sloshing rocket propellant
[NASA-CASE-MFS-11204] c14 N71-29134
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[NASA-CASE-LEW-13050-1] c07 N79-14095
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[NASA-CASE-ARC-10154-1] c14 N72-22440
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[NASA-CASE-XMF-01772] c11 N70-41677
Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions
[NASA-CASE-XMF-03248] c11 N71-10604
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Dynamometer measuring microforce thrust produced by ion engine
[NASA-CASE-XLE-00702] c14 N70-40203
Development of thrust dynamometer for measuring performance of jet and rocket engines
[NASA-CASE-XLE-05260] c14 N71-20429

E

EAR

Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185

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Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408

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Ablation sensor for measuring surface ablation rate of material on vehicles entering earth's atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991

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[NASA-CASE-NPO-14112-1] c46 N79-22679

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[NASA-CASE-MFS-20710] c11 N72-23215
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[NASA-CASE-MSC-12391] c30 N73-12884

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[NASA-CASE-NPO-14221-1] c37 N78-25431

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[NASA-CASE-NPO-14372-1] c35 N80-26635

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Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580
Echo tracker/range finder for radars and sonars
[NASA-CASE-NPO-14361-1] c32 N79-26253

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[NASA-CASE-ERC-10419] c21 N72-21631

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[NASA-CASE-GSC-12348-1] c74 N80-24149

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[NASA-CASE-XGS-04047-2] c03 N72-11062
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[NASA-CASE-GSC-11909] c32 N74-20863

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--- qualitative analysis of aqueous samples
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[NASA-CASE-MSC-16841-1] c34 N79-24285
- EJECTION**
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packages using differential pressure principle
[NASA-CASE-IMP-04132] c15 N69-27502
- EJECTION SEATS**
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seat during prelaunch or initial launch phase
of flight
[NASA-CASE-XMS-04625] c05 N71-20718
- EJECTORS**
Automatic ejection valve for attitude control
and midcourse guidance of space vehicles
[NASA-CASE-IMP-00676] c15 N70-38596
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seat during prelaunch or initial launch phase
of flight
[NASA-CASE-XMS-04625] c05 N71-20718
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self-contained spring ejector
[NASA-CASE-XLA-03538] c15 N71-24897
- ELASTIC BODIES**
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[NASA-CASE-IMP-09452] c15 N69-27504
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continually suppressing or attenuating bending
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[NASA-CASE-XAC-05632] c32 N71-23571
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[NASA-CASE-MFS-21728-1] c35 N74-27865
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Measuring shear-creep compliance of solid and
liquid materials used in spacecraft components
[NASA-CASE-XLE-01481] c14 N71-10781
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continually suppressing or attenuating bending
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[NASA-CASE-XAC-05632] c32 N71-23571
- ELASTIC MEDIA**
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tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
- ELASTIC PROPERTIES**
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[NASA-CASE-IMP-00416] c15 N70-36947
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[NASA-CASE-MFS-20400] c31 N71-18611
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receiving apertures for plurality of articles,
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[NASA-CASE-IMP-05302] c15 N71-23254
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[NASA-CASE-NPO-10767-1] c06 N73-33076
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[NASA-CASE-MFS-22189-1] c35 N75-19615
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[NASA-CASE-XMS-05516] c15 N71-17803
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[NASA-CASE-MSC-12116-1] c15 N71-17648
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[NASA-CASE-IMP-04680] c15 N71-19489
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[NASA-CASE-IMP-04133] c06 N71-20717
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[NASA-CASE-MFS-21049-1] c52 N74-27864
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[NASA-CASE-LAR-10073-1] c37 N76-24575
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[NASA-CASE-NPO-13535-1] c37 N76-31524
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[NASA-CASE-MSC-16307-1] c25 N78-27232
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[NASA-CASE-MSC-14331-3] c27 N78-32262
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[NASA-CASE-NPO-13137-1] c27 N80-32514
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[NASA-CASE-NPO-13899-1] c27 N80-32515
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[NASA-CASE-NPO-10830-1] c27 N81-15104
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[NASA-CASE-MFS-25181-1] c27 N81-16238
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containing crosslinked elastomeric
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[NASA-CASE-ABC-11248-1] c27 N81-17259
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[NASA-CASE-ABC-11253-1] c27 N81-17262
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producing large area electrets
[NASA-CASE-MFS-23186-1] c33 N76-23483
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producing large area electrets
[NASA-CASE-MFS-23186-2] c24 N78-25137
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[NASA-CASE-XLA-00330] c33 N70-34540
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[NASA-CASE-IMP-00392] c15 N70-34814
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impulse wind tunnel
[NASA-CASE-IMP-00411] c11 N70-36913
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ablation and heating gases to supersonic or
hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628
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fixed arc length for use in high temperature
wind tunnels
[NASA-CASE-XAC-01677] c09 N71-20816
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[NASA-CASE-XLE-04788] c09 N71-22987
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simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913
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recessed anode
[NASA-CASE-ABC-10266-1] c33 N75-29318
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[NASA-CASE-IGS-03864] c15 N69-24320
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[NASA-CASE-IMP-03378] c03 N71-11051
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[NASA-CASE-IGS-05432] c03 N71-19438
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[NASA-CASE-GSC-10487-1] c03 N71-24719
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[NASA-CASE-LEW-11359] c03 N71-28579
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discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-25020
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wedge shaped configuration --- for preventing
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[NASA-CASE-NPO-11806-1] c44 N74-19693
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multiple-cell battery
[NASA-CASE-MFS-20761-1] c44 N74-27519
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[NASA-CASE-MFS-22749-1] c44 N76-14601
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[NASA-CASE-NPO-11961-1] c44 N76-18643
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[NASA-CASE-MFS-23059-1] c44 N76-27664
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[NASA-CASE-PRC-10036] c09 N72-22200
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[NASA-CASE-GSC-10786-1] c10 N72-28241
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[NASA-CASE-ABC-10364-2] c33 N75-25041
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[NASA-CASE-MFS-23274-1] c33 N78-13320
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[NASA-CASE-XMS-01115] c05 N70-39922
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structure to provide escape from orbit for
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- Three transceiver lunar emergency system to
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[NASA-CASE-XLA-06199] c15 N71-24875
- EMITTERS**
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monolithic integrated circuit
[NASA-CASE-ARC-10330-1] c09 N73-32112
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- Method for applying photographic resists to
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[NASA-CASE-MSC-12279-1] c15 N70-35679
- Air brake device for absorbing and measuring
power from rotating shafts
[NASA-CASE-XLB-00720] c14 N70-40201
- Design and development of double acting shock
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[NASA-CASE-XMS-03722] c15 N71-21530
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[NASA-CASE-XMF-10040] c15 N71-22877
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[NASA-CASE-LAR-10193-1] c15 N71-27146
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[NASA-CASE-XLB-01716] c09 N70-40234
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- Increasing power conversion efficiency of
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[NASA-CASE-XMS-00945] c09 N71-10798
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[NASA-CASE-GSC-12030-1] c44 N78-24608
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[NASA-CASE-ILE-00303] c15 N70-36535
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[NASA-CASE-IXP-00148] c28 N70-38710

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[NASA-CASE-ILE-103477-1] c28 N71-20330
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[NASA-CASE-MSC-12561-1] c18 N76-17185
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[NASA-CASE-ARC-10812-1] c07 N76-18131
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[NASA-CASE-NPO-13763-1] c44 N78-33526
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[NASA-CASE-LEW-12274-1] c37 N80-31790
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[NASA-CASE-NPO-14388-1] c37 N81-17432

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[NASA-CASE-PRC-11062-1] c07 N80-32393

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[NASA-CASE-LEW-12390-1] c07 N78-17056
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[NASA-CASE-NPO-12131-3] c37 N80-18400
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[NASA-CASE-LEW-12590-1] c25 N81-19245

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[NASA-CASE-XLA-01090] c07 N71-12389
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[NASA-CASE-XMP-03498] c15 N71-15986

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- Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156

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- Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345

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[NASA-CASE-ARC-10100-1] c05 N71-24738
- Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619

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[NASA-CASE-NPO-10141] c11 N71-24564
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[NASA-CASE-ARC-11158-1] c09 N79-33220

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[NASA-CASE-XMS-09632-1] c05 N71-11203
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[NASA-CASE-XMP-03212] c15 N71-22721
- Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890
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[NASA-CASE-GSC-10188-1] c23 N71-24725
- Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
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[NASA-CASE-KSC-10198] c11 N71-28629
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- Environmentally controlled suit for working in sterile chamber
[NASA-CASE-LAR-10076-1] c05 N73-20137
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- System for real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N80-14603

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- Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
- Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
- Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985
- Multiaxial vibration device for making vibration tests along orthogonal axes of test specimen
[NASA-CASE-NPS-20242] c14 N73-19421
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- Hermetically sealed elbow actuator for use in severe environments
[NASA-CASE-NPS-14710] c09 N72-22195

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- Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
[NASA-CASE-XGS-05533] c04 N69-27487
- Enzymatic luminescent bioassay method for determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052

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- Protein sterilization of firefly luciferase without denaturation
[NASA-CASE-GSC-10225-1] c06 N73-27086

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- Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377

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- Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910

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- Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-NPS-13994-1] c06 N71-11240
- Synthesis of siloxane containing epoxide and diamine polymers
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- Fire protection covering for small diameter missiles
[NASA-CASE-ARC-11104-1] c15 N79-26100

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[NASA-CASE-NPO-15057-1] c24 N81-19230

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- Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053
- Epoxy resin sealing device for electrochemical cells in high vacuum environments
[NASA-CASE-XGS-02630] c03 N71-22974
- Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346
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EQUATIONS OF MOTION

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 polyfunctional epoxy resins with
 polyfunctional aziridine compounds
 [NASA-CASE-NPO-10701] c06 N71-28620
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 structures
 [NASA-CASE-LAR-10416-1] c24 N74-30001
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 and composites cured therewith --- preventing
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 stirring and heating stored gases and liquids
 [NASA-CASE-ARC-10441-1] c35 N74-15126
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 substantially constant temperature and humidity
 [NASA-CASE-GSC-12191-1] c31 N80-32583

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 changes in ambient temperature and extreme
 overload
 [NASA-CASE-IAC-00042] c14 N70-34816
 High-temperature, high-pressure spherical
 segment valve
 [NASA-CASE-IAC-00074] c15 N70-34817
 Remote-reading torque meter for use where high
 horsepower are transmitted at high rotative
 speeds
 [NASA-CASE-XLE-00503] c14 N70-34818
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 [NASA-CASE-IAC-00030] c14 N70-34820
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 [NASA-CASE-XLE-00252] c11 N70-34844
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 [NASA-CASE-XLE-00144] c28 N70-34860
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 [NASA-CASE-XLE-00810] c15 N70-34861
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 [NASA-CASE-INP-00476] c15 N70-38620
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 [NASA-CASE-XIA-01090] c07 N71-12389
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 vertical position for removal from vehicle
 hatch to exterior also useful as splint
 stretcher
 [NASA-CASE-INP-06589] c05 N71-23159
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 throttling rocket exhaust
 [NASA-CASE-LBW-10374-1] c28 N73-13773
 Simplified technique and device for producing
 industrial grade synthetic diamonds
 [NASA-CASE-MFS-20698-2] c15 N73-19457
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 subjecting metal specimen to tensile and
 compressive loads at constant temperature
 [NASA-CASE-LAR-10426-1] c09 N74-19528
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 the substantial absence of gravity
 [NASA-CASE-MFS-21394-1] c34 N74-27744
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 construction thereof
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 personnel to ergometer while exercising under
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 [NASA-CASE-MFS-21046-1] c14 N73-27377

Versatile ergometer with work load control
 [NASA-CASE-MFS-21109-1] c05 N73-27941
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 [NASA-CASE-MFS-21010-1] c05 N73-30078
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 [NASA-CASE-NPO-13086-1] c15 N73-12495
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 [NASA-CASE-GSC-10554-1] c08 N71-29033
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[NASA-CASE-LAR-10782-2] c31 N75-13111
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F

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[NASA-CASE-XLA-01807] c15 N71-10799
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[NASA-CASE-IXA-01027] c31 N71-24035
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[NASA-CASE-IPR-04104] c03 N70-42073
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performance electrically controlled and
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[NASA-CASE-XMS-02063] c03 N71-29044

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[NASA-CASE-MSC-12568-1] c24 N76-14204

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[NASA-CASE-NPO-13732-1] c44 N79-10513

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[NASA-CASE-INP-00185] c21 N70-34539

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Gas analyzer for bi-gaseous mixtures suitable for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10774

Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741

Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-XMS-02952] c18 N71-20742

Gas chromatographic method for analyzing hydrogen deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146

Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700

Hydrogen-rich gas generator
[NASA-CASE-NPO-13560-1] c44 N77-10636

Chemical vapor deposition reactor --- providing uniform film thickness
[NASA-CASE-NPO-13650-1] c25 N79-28253

GAS PIPES

Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608

GAS PRESSURE

Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness
[NASA-CASE-XMS-01546] c14 N70-40233

Dynamic sensor for gas pressure or density measurement
[NASA-CASE-XAC-02877] c14 N70-41681

Wide range dynamic pressure sensor with vibrating diaphragm for measuring density and pressure of gaseous environment
[NASA-CASE-ABC-10263-1] c14 N72-22438

Measurement of gas production of microorganisms --- using pressure sensors
[NASA-CASE-LAB-11326-1] c35 N75-33368

Depressurization of arc lamps
[NASA-CASE-NPO-10790-1] c33 N77-21316

Pressure limiting propellant actuating system
[NASA-CASE-HSC-18179-1] c20 N80-18097

GAS STREAMS

Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074

Stagnation pressure probe --- for measuring pressure of supersonic gas streams
[NASA-CASE-LAB-11139-1] c35 N74-32878

Process for removing sulfur dioxide from gas streams --- using iron as a catalyst
[NASA-CASE-HSC-16299-1] c45 N77-31668

Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067

Simultaneous treatment of SO₂ containing stack gases and waste water
[NASA-CASE-HSC-16258-1] c45 N79-12584

GAS TEMPERATURE

Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074

GAS TRANSPORT

Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238

GAS TUBES

GAS TUBES

Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N79-28550

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Variable-orifice hydraulic mechanism for aircraft gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793

Swirl can, full-annulus combustion chambers for high performance gas turbine engines
[NASA-CASE-LEW-11326-1] c23 N73-30665

Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190

Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
[NASA-CASE-LEW-11179-1] c27 N76-16229

Dual output variable pitch turbofan actuation system
[NASA-CASE-LEW-12419-1] c07 N77-14025

Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106

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[NASA-CASE-LEW-12608-1] c07 N77-27116

Nickel base alloy --- for gas turbine engine stator vanes
[NASA-CASE-LEW-12270-1] c26 N77-32280

Bearing seat usable in a gas turbine engine
[NASA-CASE-LEW-12477-1] c37 N77-32501

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[NASA-CASE-LEW-12321-1] c37 N78-10467

Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384

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[NASA-CASE-LEW-12389-2] c07 N78-18066

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[NASA-CASE-LEW-12917-1] c07 N78-18067

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[NASA-CASE-LEW-12785-1] c37 N78-24545

Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

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[NASA-CASE-LAR-11208-1] c44 N78-32539

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[NASA-CASE-LEW-12496-1] c07 N78-33101

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[NASA-CASE-LEW-12389-3] c07 N79-14096

Variable area exhaust nozzle
[NASA-CASE-LEW-12378-1] c07 N79-14097

A silicon-slurry/aluminate coating --- protects aircraft and land-based gas turbine engines
[NASA-CASE-LEW-13343-1] c24 N80-26389

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[NASA-CASE-NPO-14220-1] c37 N81-14318

Curved centerline air intake for a gas turbine engine
[NASA-CASE-LEW-13201-1] c07 N81-14999

Apparatus for sensor failure detection and correction in a gas turbine engine control system
[NASA-CASE-LEW-12907-2] c07 N81-19115

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Method for maintaining good performance in gas turbine during air flow distortion
[NASA-CASE-LEW-10286-1] c28 N71-28915

Gas turbine exhaust nozzle --- for noise reduction
[NASA-CASE-LEW-11569-1] c07 N74-15453

Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056

Counter pumping debris excluder and separator --- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090

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[NASA-CASE-LEW-11877-1] c34 N78-27357

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[NASA-CASE-LEW-12232-1] c07 N79-10057

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[NASA-CASE-NPO-14130-1] c34 N79-20335

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[NASA-CASE-LEW-13088-1] c24 N80-11142

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[NASA-CASE-IAC-00074] c15 N70-34817

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[NASA-CASE-XLE-00815] c15 N70-35407

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[NASA-CASE-IAC-01158] c15 N71-23051

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[NASA-CASE-NMP-02039] c15 N71-15871

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[NASA-CASE-HSC-19095-1] c37 N75-19683

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[NASA-CASE-LAR-11110-1] c34 N75-26282

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[NASA-CASE-LEW-23169-2] c26 N81-16209

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[NASA-CASE-ABC-10370-1] c36 N75-31426

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[NASA-CASE-XLE-02531] c05 N71-23080

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[NASA-CASE-NPO-13930-1] c52 N79-14749

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[NASA-CASE-LEW-10250-1] c22 N71-28759

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[NASA-CASE-XLE-00376] c28 N70-37245

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[NASA-CASE-NMP-06926] c28 N71-22983

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[NASA-CASE-NPO-10070] c15 N71-27372

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[NASA-CASE-LAR-10739-1] c14 N73-16484

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[NASA-CASE-HSC-14773-1] c35 N78-12390

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[NASA-CASE-HMS-01295-1] c37 N79-21345

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[NASA-CASE-XGS-02441] c15 N70-41629

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[NASA-CASE-NFS-21364-1] c37 N74-18126

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[NASA-CASE-XGS-01881] c09 N70-40123

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[NASA-CASE-XLA-07497] c09 N71-12514

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[NASA-CASE-XLA-07391] c12 N71-17579

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- [NASA-CASE-LAR-12772-1] c33 N81-15195
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- [NASA-CASE-LAR-10686] c14 N71-28935
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- [NASA-CASE-LAR-10585-1] c02 N76-22154
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- [NASA-CASE-WOO-00625] c37 N78-17385
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- [NASA-CASE-GSC-12289-1] c37 N80-32717
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- [NASA-CASE-MFS-14772] c15 N71-17692
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- [NASA-CASE-MFS-14971] c15 N71-24984
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- [NASA-CASE-MFS-23274-1] c33 N78-13320
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- [NASA-CASE-GSC-10306-1] c15 N71-24694
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- [NASA-CASE-MSC-10959] c15 N71-26243
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- [NASA-CASE-GSC-10556-1] c31 N71-26537
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- [NASA-CASE-XLB-10326-2] c15 N72-29488
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- [NASA-CASE-IGS-04531] c03 N69-24267
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- [NASA-CASE-XLB-02624] c12 N69-39988
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- [NASA-CASE-LFW-10698-1] c37 N74-21063
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- [NASA-CASE-LFW-11065-2] c44 N76-14600
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- [NASA-CASE-ARC-11051-1] c27 N78-32260
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- [NASA-CASE-LFW-10278-1] c15 N71-28582
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- [NASA-CASE-LAR-10385-3] c74 N78-15879
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- [NASA-CASE-NPO-10682] c15 N70-34699
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- [NASA-CASE-NPO-13910-1] c52 N79-27836
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- [NASA-CASE-MSC-14795-2] c24 N78-25138
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- [NASA-CASE-ARC-11040-1] c24 N79-16915
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GLAUCOMA

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[NASA-CASE-ARC-10456-1] c05 N75-12930

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[NASA-CASE-XNP-05844] c14 N71-17587

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[NASA-CASE-ARC-10444-1] c16 N73-33397
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[NASA-CASE-XNP-08274] c10 N71-13537
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[NASA-CASE-XNP-00424] c11 N70-38196
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[NASA-CASE-GSC-10555-1] c21 N71-27324

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[NASA-CASE-MFS-11279] c16 N71-20400
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[NASA-CASE-MSC-12111-1] c02 N71-11039
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[NASA-CASE-MFS-14685] c31 N71-15689
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[NASA-CASE-XMP-00580] c11 N70-35383
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[NASA-CASE-XMS-05454-1] c07 N71-12391
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[NASA-CASE-XKS-03338] c15 N71-24043
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[NASA-CASE-NPO-14480-1] c32 N80-20448
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[NASA-CASE-MSC-12111-1] c02 N71-11039
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[NASA-CASE-XLA-07911] c15 N71-15571
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[NASA-CASE-LAR-10686] c14 N71-28935
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[NASA-CASE-XLA-00013] c15 N71-29136
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[NASA-CASE-KSC-10513] c15 N72-25453
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[NASA-CASE-FRC-11005-1] c06 N79-24988
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[NASA-CASE-IGS-00824] c15 N71-16078
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[NASA-CASE-NPO-11120-1] c34 N74-18552
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Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288

System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20656

Low intensity X-ray and gamma-ray imaging device --- fiber optics
[NASA-CASE-GSC-12263-1] c74 N79-20657

Diffraction grating configuration for X-ray and ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N80-21140

Low intensity X-ray and gamma-ray imaging spectrometer
[NASA-CASE-GSC-12587-1] c35 N80-29635

Multispectral scanner optical system
[NASA-CASE-MSC-18255-1] c74 N80-33210

System for forming a quadrified image comprising angularly related fields of view of a three dimensional object
[NASA-CASE-NPO-14219-1] c74 N81-17886

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Synthesis and chemical properties of imidazopyrrolone/imide copolymers
[NASA-CASE-XLA-08802] c06 N71-11238

Molding process for imidazopyrrolone polymers
[NASA-CASE-LAR-10547-1] c31 N74-13177

IMINES
Synthesis of polymeric schiff bases by schiff-base exchange reactions
[NASA-CASE-IMP-08651] c06 N71-11236

Direct synthesis of polymeric schiff bases from two amines and two aldehydes
[NASA-CASE-IMP-08655] c06 N71-11239

Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-IMP-08652] c06 N71-11243

Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
[NASA-CASE-IMP-03074] c06 N71-24740

IMMOBILIZATION
Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-IMP-06589] c05 N71-23159

Absolute focus locking device for microscopes to maintain set focus for extended time period
[NASA-CASE-LAR-10184] c14 N72-22445

IMPACT
Shock absorber for use as protective barrier in impact energy absorbing system
[NASA-CASE-NPO-10671] c15 N72-20443

System for detecting impact position of cosmic dust on detector surface
[NASA-CASE-GSC-11291-1] c25 N72-33696

Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331

IMPACT ACCELERATION
Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146

IMPACT DAMAGE
Measuring micrometeoroid depth of penetration into various materials
[NASA-CASE-XLA-00941] c14 N71-23240

IMPACT LOADS
Piezoelectric transducer for detecting and measuring micrometeoroids
[NASA-CASE-IAC-01101] c14 N70-41957

Impact testing machine for imparting large impact forces on high velocity packages
[NASA-CASE-IMP-04817] c14 N71-23225

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Electric storage battery with high impact resistance
[NASA-CASE-NPO-11021] c03 N72-20032

Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188

IMPACT STRENGTH
High impact pressure regulator having minimum number of lightweight movable elements
[NASA-CASE-NPO-10175] c14 N71-18625

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Development and characteristics of pentrometer for measuring physical properties of lunar surface
[NASA-CASE-XLA-00934] c14 N71-22765

Impact testing machine for imparting large impact forces on high velocity packages
[NASA-CASE-IMP-04817] c14 N71-23225

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High impact antennas with high radiating efficiency
[NASA-CASE-NPO-10231] c07 N71-26101

Vehicular impact absorption system
[NASA-CASE-NPO-14014-1] c37 N79-10420

IMPEDANCE MATCHING
Impedance transformation device for signal mixing
[NASA-CASE-XGS-01110] c07 N69-24334

Reflectometer for receiver input impedance match measurement
[NASA-CASE-IMP-10843] c07 N71-11267

Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
[NASA-CASE-XGS-01418] c09 N71-23573

Pattern and impedance matching improvements in transversely polarized triaxial antenna
[NASA-CASE-XGS-02290] c07 N71-28809

Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336

IMPEDANCE MEASUREMENTS
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[NASA-CASE-IMS-08589-1] c09 N71-20569

Apparatus for measuring semiconductor device resistance
[NASA-CASE-NPO-14424-1] c33 N80-32650

IMPLANTATION
Biotelemetry apparatus with dual voltage generators for implanting in animals
[NASA-CASE-IAC-05706] c05 N71-12342

Magnetic electrical connectors for biomedical percutaneous implants
[NASA-CASE-KSC-11030-1] c52 N77-25772

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[NASA-CASE-GSC-12560-1] c52 N80-27073

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[NASA-CASE-ARC-11258-1] c52 N80-33081

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[NASA-CASE-ARC-11117-1] c52 N81-14612

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[NASA-CASE-IAC-05902] c11 N71-18578

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[NASA-CASE-LAR-12019-1] c24 N78-17150

Insoluble polyelectrolyte and ion-exchange hollow fiber impregnated therewith
[NASA-CASE-NPO-13530-1] c25 N81-17187

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[NASA-CASE-KSC-10849-1] c52 N77-14738

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Fabrication of sintered impurity semiconductor brushes for electrical energy transfer
[NASA-CASE-IMP-01016] c26 N71-17818

Method of mitigating titanium impurities effects in p-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N80-24741

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System for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-FRC-11024-1] c02 N80-28300

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[NASA-CASE-MFS-22409-2] c74 N78-15880

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INCIDENT RADIATION

Solar cell assembly --- for use under high intensity illumination
[NASA-CASE-LEW-11549-1] c44 N77-19571

INCLINATION
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

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Rapidly pulsed, high intensity, incoherent light source
[NASA-CASE-XLB-2529-3] c33 N74-20859

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[NASA-CASE-XLA-00791] c03 N70-39930
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[NASA-CASE-XLB-01609] c14 N71-10500
Apparatus for determining quality of bond between high density material and low density material
[NASA-CASE-MFS-13686] c15 N71-18132
Device for detecting hydrogen fires onboard high altitude rockets
[NASA-CASE-MFS-13130] c10 N72-17173
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[NASA-CASE-LAR-12027-1] c39 N79-22537

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[NASA-CASE-MFS-23405-1] c26 N77-29260
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[NASA-CASE-LEW-12552-1] c44 N78-25527

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[NASA-CASE-LEW-10330-1] c09 N72-27226
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[NASA-CASE-LAR-12540-1] c37 N80-11468
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[NASA-CASE-LAR-12595-1] c37 N80-11469
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[NASA-CASE-MFS-23988-1] c33 N79-25315
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[NASA-CASE-MFS-23828-1] c33 N80-17359
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[NASA-CASE-MFS-25535-1] c33 N81-12330

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[NASA-CASE-XMF-01667] c15 N71-17647
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[NASA-CASE-ERC-10065] c09 N71-27364
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[NASA-CASE-MFS-20698-2] c15 N73-19457

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oxidation reactions
[NASA-CASE-MSC-14831-1] c25 N78-10225
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[NASA-CASE-MSC-10959] c15 N71-26243

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[NASA-CASE-XMS-02184] c15 N71-20813
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[NASA-CASE-XMF-01669] c21 N71-23289
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[NASA-CASE-NPO-13044-1] c35 N74-15094
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[NASA-CASE-MFS-22787-1] c15 N77-10113
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[NASA-CASE-XGS-04393] c21 N71-14159
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[NASA-CASE-XLA-03497] c15 N71-23052
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[NASA-CASE-XMS-00864] c05 N70-36493
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[NASA-CASE-XLA-00204] c32 N70-36536
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[NASA-CASE-XMS-00893] c07 N70-40063
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[NASA-CASE-XGS-02884] c15 N71-22705

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[NASA-CASE-LAR-10726-1] c14 N73-20475

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[NASA-CASE-MSC-11847-1] c14 N72-11363

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[NASA-CASE-NPO-10866-1] c28 N79-14228

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[NASA-CASE-XLA-00791] c03 N70-39930

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[NASA-CASE-LAR-10372] c09 N71-18599

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[NASA-CASE-XLE-00111] c28 N70-38199

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[NASA-CASE-XNP-00148] c28 N70-38710

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[NASA-CASE-XGS-06628] c24 N71-16213

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[NASA-CASE-XNP-09702] c15 N71-17654

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[NASA-CASE-XNP-09461] c28 N72-23809

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[NASA-CASE-NPO-11095] c15 N72-25455

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[NASA-CASE-NPO-11377] c15 N73-27406

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[NASA-CASE-XNP-04592-1] c20 N79-21125

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[NASA-CASE-XNP-00214] c15 N70-36908

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[NASA-CASE-LEW-10286-1] c28 N71-28915

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[NASA-CASE-LEW-11188-1] c02 N74-20646

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[NASA-CASE-LEW-11915-1] c35 N76-14431

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[NASA-CASE-LEW-11890-1] c05 N79-24976

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Shock position sensor for supersonic inlets --- measuring pressure in the throat of a supersonic inlet
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[NASA-CASE-LAR-11074-1] c51 N75-13502

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[NASA-CASE-GSC-11214-1] c06 N73-13128

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[NASA-CASE-ARC-11057-1] c27 N78-31233

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[NASA-CASE-XMP-04264] c03 N69-21337

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[NASA-CASE-XMP-03988] c15 N71-21403

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[NASA-CASE-MPS-20011] c18 N72-22566

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[NASA-CASE-LEW-12649-1] c44 N78-25530

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[NASA-CASE-NPO-13910-1] c52 N79-27836

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[NASA-CASE-XMP-01193] c10 N71-16057

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[NASA-CASE-NPO-13282] c38 N78-17396

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[NASA-CASE-MSC-11042-1] c02 N81-14967

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[NASA-CASE-MPS-19220-1] c20 N76-22296

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[NASA-CASE-NPO-13540-1] c35 N77-14409

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[NASA-CASE-MSC-16934-2] c37 N81-16468

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[NASA-CASE-XLA-00183] c14 N70-40239

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[NASA-CASE-XFB-04147] c11 N71-10748

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[NASA-CASE-XMP-04180] c07 N69-39736

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[NASA-CASE-XMP-01669] c21 N71-23289

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[NASA-CASE-XAC-09489-1] c15 N71-26673

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[NASA-CASE-GSC-10945-1] c21 N72-31637

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[NASA-CASE-XLA-00482] c15 N70-36409

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[NASA-CASE-XLA-00838] c03 N70-36778

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[NASA-CASE-XLA-01339] c31 N71-15692

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[NASA-CASE-IGS-02319] c14 N71-22965

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[NASA-CASE-XLA-00781] c09 N71-22999

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[NASA-CASE-LEW-10281-1] c14 N72-17327

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[NASA-CASE-MSC-12372-1] c31 N72-25842

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[NASA-CASE-LAR-11889-2] c37 N78-27424

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- Star sensor system for roll attitude control of spacecraft
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[NASA-CASE-MFS-25000-1] c25 N81-19242
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- Emergency escape cabin system for launch towers
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[NASA-CASE-XNS-04625] c05 N71-20718
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- Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-IXF-03198] c30 N70-40353
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[NASA-CASE-XLA-01396] c03 N71-12259
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[NASA-CASE-XKS-10543] c07 N71-26292
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[NASA-CASE-LEW-12081-1] c28 N78-24365
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- Process for the leaching of AP from propellant
[NASA-CASE-NPO-14109-1] c28 N80-23471
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- Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-MFS-23059-1] c44 N76-27664
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[NASA-CASE-IGS-05718] c26 N71-16037
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[NASA-CASE-LAR-12750-1] c02 N81-19016
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- Leading edge design for hypersonic reentry vehicles
[NASA-CASE-XLA-00165] c31 N70-33242
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[NASA-CASE-IAC-07043] c05 N71-23161
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[NASA-CASE-ERC-10034] c15 N71-24896
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[NASA-CASE-ERC-10045] c15 N71-24910
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[NASA-CASE-ERC-10033] c14 N71-26672
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[NASA-CASE-ERC-10150] c14 N71-28992
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[NASA-CASE-MFS-21761-1] c35 N75-15931
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[NASA-CASE-LAR-11237-1] c35 N75-19612
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[NASA-CASE-XLE-02367-1] c31 N79-21225
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- Chromatically corrected virtual image display --- lens design for flight simulators
[NASA-CASE-LAR-12251-1] c74 N79-14892
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[NASA-CASE-GSC-11133-1] c23 N72-11568
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[NASA-CASE-NPO-11013-1] c09 N73-19234
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[NASA-CASE-XLE-00454] c23 N71-17802
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[NASA-CASE-ARC-10981-1] c37 N78-27425

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[NASA-CASE-XMS-06236] c14 N71-21007
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[NASA-CASE-XMP-14301] c09 N71-23188

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[NASA-CASE-XLA-07911] c15 N71-15571
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[NASA-CASE-NPO-10037] c09 N71-19610
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[NASA-CASE-LEW-11087-3] c37 N74-21064

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[NASA-CASE-IGS-05533] c04 N69-27487
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[NASA-CASE-XGS-05532] c06 N71-17705

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[NASA-CASE-XMS-00863] c05 N70-34857
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[NASA-CASE-MSC-12393-1] c02 N73-26006
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[NASA-CASE-LAR-10241-1] c54 N74-14845

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[NASA-CASE-XMS-01240] c05 N70-35152
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[NASA-CASE-XMS-09632-1] c05 N71-11203
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[NASA-CASE-MSC-12243-1] c05 N71-24728
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[NASA-CASE-XMS-09637-1] c05 N71-24730
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[NASA-CASE-XMS-06162] c31 N71-28851
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[NASA-CASE-XLA-08913] c14 N71-28933
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[NASA-CASE-MSC-12411-1] c05 N72-20096
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[NASA-CASE-XLA-8914] c15 N73-12492
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[NASA-CASE-MSC-12609-1] c05 N73-32012
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[NASA-CASE-LAR-10551-1] c25 N74-12813
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[NASA-CASE-XMS-09653] c54 N78-17680
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[NASA-CASE-FRC-11058-1] c85 N80-33312

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[NASA-CASE-XMP-04969] c11 N69-27466
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[NASA-CASE-XMP-00389] c31 N70-34176
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[NASA-CASE-LAR-10249-1] c02 N71-26110
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[NASA-CASE-LAR-10574-1] c11 N73-13257
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[NASA-CASE-LAR-11252-1] c05 N75-25914
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[NASA-CASE-MFS-19220-1] c20 N76-22296
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[NASA-CASE-LAR-11868-2] c08 N79-14108

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Design of ring wing vehicle of high drag-to-weight ratio to withstand reentry stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315
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[NASA-CASE-FRC-11007-2] c02 N79-24959

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[NASA-CASE-XMP-00389] c31 N70-34176
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[NASA-CASE-FRC-10063] c01 N71-12217
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[NASA-CASE-LAR-10348-1] c11 N73-12264

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Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed

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[NASA-CASE-XLA-03691] c31 N71-15674
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atmospheric reentry, and landing at selected
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and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
- Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
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preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484
- LIGHT AIRCRAFT**
- Direct lift control system having flaps with
slots adjacent to their leading edge and
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[NASA-CASE-LAR-10249-1] c02 N71-26110
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[NASA-CASE-NPO-14782-1] c36 N80-18381
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light beam from telescope into narrow beam for
spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
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communications system based on modulation of
light beams
[NASA-CASE-XLA-01090] c16 N71-28963
- Multiple pattern holographic information storage
and readout system
[NASA-CASE-ERC-10151] c16 N71-29131
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[NASA-CASE-NPO-14258-1] c35 N80-12383
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[NASA-CASE-NPO-14813-1] c74 N80-24152
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[NASA-CASE-ABC-11311-1] c74 N81-16882
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- Implosion driven, light gas, hypervelocity gun
[NASA-CASE-XAC-05902] c11 N71-18578
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spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
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servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
- Method and apparatus for optically modulating
light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722
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[NASA-CASE-XLA-01090] c16 N71-28963
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[NASA-CASE-KSC-10565] c09 N72-25250
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[NASA-CASE-GSC-11782-1] c74 N76-30053
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[NASA-CASE-NPO-14524-1] c32 N80-24510
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[NASA-CASE-NPS-25312-1] c74 N80-34251
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gaseous depolarization factor in the presence
of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434
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--- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874
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light levels --- determining the adequacy of
large space telescope systems
[NASA-CASE-NPS-23513-1] c74 N79-11865
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- Light radiation direction indicator with baffle
of two parallel grids
[NASA-CASE-INP-03930] c14 N69-24331
- High intensity heat and light unit containing
quartz lamp elements protectively positioned
to withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
- Photosensitive light source device for detecting
unmanned spacecraft deviation from reference
attitude
[NASA-CASE-INP-00438] c21 N70-35089
- Electro-optical detector for determining
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[NASA-CASE-INP-01059] c23 N71-21821
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wavelength light beams from multiple
wavelength light source
[NASA-CASE-ERC-10248] c14 N72-17323
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[NASA-CASE-MSC-12293-1] c14 N72-27411
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maintaining luminous intensity independent of
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[NASA-CASE-ABC-10467-1] c09 N73-14214
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precisely determining direction to remote
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[NASA-CASE-ABC-10278-1] c14 N73-25463
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[NASA-CASE-LAR-10586-1] c19 N74-15089
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[NASA-CASE-INP-01296] c33 N75-27250
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[NASA-CASE-ABC-10266-1] c33 N75-29318
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[NASA-CASE-NPO-11429-1] c74 N77-21941
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- Hybrid holographic system using reference,
transmitted, and reflected beams simultaneously
[NASA-CASE-NPS-20074] c16 N71-15565
- Optical characteristics measuring apparatus
[NASA-CASE-INP-08840] c23 N71-16365
- Optical monitor panel consisting of translucent
screen with test or meter information
projected onto it from rear for application in
control rooms of missile launching and
tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
- Solar cell panel with light transmitting cover
plate
[NASA-CASE-NPO-10747] c03 N72-22042
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distributing optical frequency radiation
[NASA-CASE-HQN-10541-3] c23 N72-23695
- Thin absorbing metallic film for increased
visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-27784
- Transmitting and reflecting diffuser --- for
ultraviolet light
[NASA-CASE-LAR-10385-2] c70 N74-13436
- Optical instrument employing reticle having
preselected visual response pattern formed
thereon
[NASA-CASE-ABC-10976-1] c74 N77-22950
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ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879
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- Sealed fluorescent tube light unit capable of
connection with other units to form string of
work lights
[NASA-CASE-IKS-05932] c09 N71-26787
- Pressurized inert gas feed for lighting system
[NASA-CASE-KSC-10644] c09 N72-27227
- Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315
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lighting equipment
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- Apparatus for determining distance to lightning
strokes from single station by magnetic and
electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
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coordination of directional antenna signals
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LIBRS (ANATOMY)

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[NASA-CASE-KSC-10807-1] c33 N75-26246

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[NASA-CASE-KSC-11018-1] c33 N79-10337

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[NASA-CASE-KSC-11057-1] c33 N79-14305

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[NASA-CASE-KSC-11099-1] c33 N79-25313

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[NASA-CASE-KSC-11069-1] c52 N79-26772

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[NASA-CASE-XLA-01219] c10 N71-23084

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[NASA-CASE-NPO-10169] c10 N71-24844

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[NASA-CASE-XLA-07473] c15 N71-24695

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[NASA-CASE-GSC-11789-1] c33 N77-14333

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Stark cell optoacoustic detection of constituent gases in sample
[NASA-CASE-NPO-14143-1] c25 N81-14015

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[NASA-CASE-XGS-05441] c10 N71-22962

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[NASA-CASE-NPO-13691-1] c43 N79-17288

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Antenna array at focal plane of reflector with coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233

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[NASA-CASE-NPO-10351] c08 N71-12503

Family of m-ary linear feedback shift register with binary logic
[NASA-CASE-NPO-11868] c10 N73-20254

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Semilinear bearing comprising two rows of roller bearings separated by spherical bearings and permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22582

Mechanical actuator wherein linear motion changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

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[NASA-CASE-LEW-13268-1] c37 N80-24619

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[NASA-CASE-MFS-20760] c14 N72-33377

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[NASA-CASE-LAR-11900-1] c37 N79-14382

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[NASA-CASE-LAR-11797-1] c05 N81-19087

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Ophthalmic liquifaction pump
[NASA-CASE-LEW-12051-1] c52 N75-33640

LIQUID BEARINGS

Fatigue life of hybrid antifriction bearings at ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N73-32359

LIQUID COOLING

Water cooled contactors for holding rotating carbon arc anode
[NASA-CASE-XMS-03700] c15 N69-24266

External device for liquid spray cooling of gas turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372

Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss

[NASA-CASE-XNP-01951] c09 N70-41929

Laminar flow of liquid coolants in rocket engines
[NASA-CASE-NPO-10122] c12 N71-17631

Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439

Electric power system with circulatory liquid coolant cooling system
[NASA-CASE-MFS-14114-2] c09 N71-24807

Electric power system with thermionic diodes and circulatory liquid metal coolant lines
[NASA-CASE-MFS-14114] c33 N71-27862

Apparatus for liquid spray cooling of turbine blades
[NASA-CASE-XLE-00027] c33 N71-29152

Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098

Automatic temperature control for liquid cooled space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071

Heat exchanger system and method
[NASA-CASE-LAR-10799-2] c34 N76-17317

Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ARC-11007-1] c52 N77-14736

Closed loop spray cooling apparatus --- for particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17237

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[NASA-CASE-BEC-10292] c14 N72-25410

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[NASA-CASE-BEC-10275] c26 N72-25680

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Liquid rocket systems for propulsion and control of spacecraft
[NASA-CASE-XNP-00610] c28 N70-36910

Design and development of fluid sample collector
[NASA-CASE-XMS-06767-1] c14 N71-20435

Manufacture of fluid containers from fused coated polyester sheets having resealable septum
[NASA-CASE-NPO-10123] c15 N71-24835

Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
[NASA-CASE-BQB-10780] c14 N71-30265

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[NASA-CASE-XLE-02624] c12 N69-39988

Liquid junction for glass electrode or pH meters
[NASA-CASE-NPO-10682] c15 N70-34699

Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409

Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492

Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
[NASA-CASE-XMP-02822] c14 N70-41994

High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
[NASA-CASE-XLE-02998] c14 N70-42074

Carrier liquid system containing bodies of ablative material
[NASA-CASE-LEW-10359-2] c33 N73-25952

Zero gravity liquid transfer device, using spiral shaped screen
[NASA-CASE-KSC-10626] c14 N73-27378

System for measuring Reynolds in a turbulently flowing fluid --- signal processing
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Heat operated cryogenic electrical generator
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Helium refrigerator
[NASA-CASE-NPO-13435-1] c31 N76-14284

Cryostat system for temperatures on the order of 2 deg K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229

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Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c72 N79-13826

Low cost cryostat
[NASA-CASE-NPO-14513-1] c35 N81-14287

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[NASA-CASE-XMF-05046] c33 N71-28692

Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures
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Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-N70-34294] c28 N70-34294

System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582

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[NASA-CASE-XMF-00968] c28 N71-15660

Sodium storage and injection system
[NASA-CASE-NPO-14384-1] c37 N80-10494

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[NASA-CASE-NPO-14382-1] c31 N80-18231

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[NASA-CASE-BRC-10187] c16 N69-31343

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[NASA-CASE-XLE-02083] c03 N69-39983

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[NASA-CASE-XMF-00644] c03 N70-36803

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[NASA-CASE-XLE-01997] c06 N71-23527

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[NASA-CASE-MFS-14114] c33 N71-27862

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[NASA-CASE-XMF-08881] c17 N71-28747

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[NASA-CASE-LEW-12277-2] c33 N78-25323

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[NASA-CASE-LEW-12277-3] c33 N80-18300

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[NASA-CASE-LAR-10031] c15 N72-22484

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[NASA-CASE-XMF-02221] c18 N71-27170

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Method and feed system for separating and orienting liquid and vapor phases of liquid

propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635

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[NASA-CASE-XMF-07659] c06 N71-22975

Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199

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[NASA-CASE-NPO-10619-1] c35 N77-21393

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[NASA-CASE-XLE-00078] c28 N70-33284

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[NASA-CASE-XMF-00185] c21 N70-34539

Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XMF-00148] c28 N70-38710

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[NASA-CASE-XMF-01390] c28 N70-41275

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[NASA-CASE-LEW-11058-1] c20 N74-13502

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[NASA-CASE-MFS-22734-1] c18 N75-19329

Low thrust monopropellant engine --- low temperature environments
[NASA-CASE-GSC-12194-2] c20 N79-15151

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[NASA-CASE-XMF-04592-1] c20 N79-21125

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Liquid rocket systems for propulsion and control of spacecraft
[NASA-CASE-XMF-00610] c28 N70-36910

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[NASA-CASE-XLE-00323] c28 N70-38505

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[NASA-CASE-XLE-00660] c28 N70-39925

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[NASA-CASE-XMF-00732] c28 N70-41447

Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646

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[NASA-CASE-XMF-01899] c31 N70-41948

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[NASA-CASE-XLE-01182] c27 N71-15635

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[NASA-CASE-XMF-09702] c15 N71-17654

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[NASA-CASE-XLA-05749] c15 N71-19569

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[NASA-CASE-XMF-01747] c15 N71-23024

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[NASA-CASE-NPO-10185] c10 N71-26339

Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XMF-08881] c17 N71-28747

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[NASA-CASE-MFS-11204] c14 N71-29134

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[NASA-CASE-MFS-23642-1] c20 N80-10278

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LIQUID SLOSHING

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LIQUID SLOSHING

Slosh damping method for liquid rocket propellant tanks
[NASA-CASE-XNP-00658] c12 N70-38997
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[NASA-CASE-LAR-10317-1] c32 N71-16103
Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
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[NASA-CASE-XLE-00454] c23 N71-17802
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[NASA-CASE-XLA-05749] c15 N71-19569
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[NASA-CASE-XLA-05541] c12 N71-26387

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[NASA-CASE-NPO-14384-1] c37 N80-10494

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[NASA-CASE-XMS-01624] c15 N70-40062
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[NASA-CASE-XMS-01492] c05 N70-41297
Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
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[NASA-CASE-XLA-00415] c15 N71-16079
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[NASA-CASE-XNP-04042] c15 N71-23023

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[NASA-CASE-XLR-00586] c15 N71-15568
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[NASA-CASE-XNP-02862-1] c15 N71-26294
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[NASA-CASE-NPS-11204] c14 N71-29134

LIQUIDS

Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
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[NASA-CASE-NPO-10037] c09 N71-19610
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[NASA-CASE-XNP-08124] c15 N71-27184
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[NASA-CASE-XNP-02500] c18 N71-27397
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[NASA-CASE-NSC-11847-1] c14 N72-11363
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[NASA-CASE-LAR-10365-1] c05 N72-27102
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[NASA-CASE-LAR-10195-1] c15 N73-19458
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[NASA-CASE-ARC-10441-1] c35 N74-15126
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[NASA-CASE-NSC-14187-1] c35 N74-32879
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[NASA-CASE-LAR-11071-1] c35 N75-19611
Thermal energy storage system --- operating on superheating of liquids
[NASA-CASE-NPS-23167-1] c44 N76-31667
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[NASA-CASE-NSC-14773-1] c35 N78-12390
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[NASA-CASE-ARC-10820-1] c35 N78-19466
Liquid-immersible electrostatic ultrasonic transducer
[NASA-CASE-LAR-12465-1] c35 N80-18363
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[NASA-CASE-NPO-10998-1] c06 N73-32029
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[NASA-CASE-XNP-00456] c14 N70-34705
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[NASA-CASE-XNP-00840] c15 N70-38225
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[NASA-CASE-NPS-21488-1] c14 N75-24794
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[NASA-CASE-ARC-10907-1] c37 N75-32465
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[NASA-CASE-XMS-06782] c32 N71-15974
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[NASA-CASE-XMS-06329-1] c15 N71-20441
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[NASA-CASE-LAR-10208-1] c35 N76-18400
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[NASA-CASE-LAR-12027-1] c39 N79-22537
LOAD TESTS
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[NASA-CASE-XAC-00042] c14 N70-34816
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[NASA-CASE-XNP-01887] c15 N71-10617
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[NASA-CASE-XNP-04969] c11 N69-27466
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[NASA-CASE-XAC-00073] c14 N70-34813
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[NASA-CASE-XLE-02999] c15 N71-16052
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[NASA-CASE-XMS-06329-1] c15 N71-20441
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[NASA-CASE-XMS-05890] c09 N71-23191
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[NASA-CASE-GSC-10413] c10 N71-26531
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[NASA-CASE-GSC-10065-1] c10 N71-27136
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[NASA-CASE-NPO-10808] c15 N71-27432
Energy absorption device in high precision gear train for protection against damage to components caused by stop loads
[NASA-CASE-XNP-01848] c15 N71-28959
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[NASA-CASE-NLP-10002] c15 N72-17451

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[NASA-CASE-HFS-20434] c11 N72-25288
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[NASA-CASE-HFS-20317] c15 N73-13463
- Versatile ergometer with work load control
[NASA-CASE-HFS-21109-1] c05 N77-27941
- Three-axis adjustable loading structure
[NASA-CASE-FBC-10051-1] c35 N74-13129
- G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ABC-10806] c06 N74-27872
- Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ABC-10898-1] c35 N77-18417
- Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367
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[NASA-CASE-HSC-19535-1] c37 N77-32499
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System for locating lightning strokes by coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110
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[NASA-CASE-HSC-12593-1] c17 N76-21250
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Releasable coupling device designed to receive and retain matching ends of electrical connectors
[NASA-CASE-XMS-07846-1] c09 N69-21927
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Ball locking device which releases in response to small forces when subjected to high axial loads
[NASA-CASE-XNP-01371] c15 N70-41829
- Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
[NASA-CASE-GSC-10556-1] c31 N71-26537
- Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-XNP-00816] c28 N71-28928
- Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
- Design of quick release locking pin for joining two or more load-carrying structural members
[NASA-CASE-HFS-18495] c15 N72-11385
- Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914
- Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694
- Portable appliance security apparatus
[NASA-CASE-GSC-12399-1] c33 N79-13261
- High temperature penetrator assembly with bayonet plug and ramp-activated lock
[NASA-CASE-HSC-18526-1] c35 N80-19468
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Jet shoes for space locomotion
[NASA-CASE-XLA-08491] c05 N69-21380
- Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
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[NASA-CASE-HSC-12397-1] c05 N72-25119
- Kinesimetric method and apparatus
[NASA-CASE-HSC-18929-1] c54 N81-15699
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[NASA-CASE-GSC-12145-1] c33 N78-32339
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[NASA-CASE-ERC-10267] c09 N72-23173
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[NASA-CASE-ERC-10072] c09 N70-11148
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[NASA-CASE-XNP-00421] c09 N70-34502
- Binary to binary-coded decimal converter using single set of logic circuits notwithstanding number of shift register decades
[NASA-CASE-XNP-00432] c08 N70-35423
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[NASA-CASE-IAC-00404] c08 N70-40125
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[NASA-CASE-IGS-04767] c08 N71-12494
- Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-XNP-05415] c08 N71-12505
- Bistable multivibrator circuits operating at high speed and low power dissipation
[NASA-CASE-IGS-00823] c10 N71-15910
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[NASA-CASE-XLA-07391] c12 N71-17579
- Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-IGS-04766] c08 N71-18602
- Constructing Exclusive-Or digital logic circuit in single module
[NASA-CASE-XLA-07732] c08 N71-18751
- Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
- Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650
- Binary to decimal decoder logic circuit, design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
- Design and development of multistage current steering switch with inductively coupled magnetic cores
[NASA-CASE-XNP-08567] c09 N71-26000
- Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-XNP-04623] c10 N71-26103
- Adaptive signal generating system and logic circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374
- Transistorized switching logic circuits with tunnel diodes
[NASA-CASE-GSC-10878-1] c10 N72-22236
- Logical function and circuit generator
[NASA-CASE-XLA-05099] c09 N73-13209
- A synchronous binary array divider
[NASA-CASE-ERC-10180-1] c60 N74-20836
- Four phase logic systems --- including integrated microcircuits
[NASA-CASE-HSC-14240-1] c33 N75-14957
- An interleaving device --- for computer logic circuits used in optical data processing
[NASA-CASE-GSC-12111-2] c60 N77-31800
- A general logic structure for custom LSI circuits
[NASA-CASE-NPO-14410-1] c33 N79-25314
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[NASA-CASE-GSC-12111-2] c60 N77-31800
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[NASA-CASE-IAC-01404] c05 N70-41581
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[NASA-CASE-FBC-11007-2] c02 N79-24959
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[NASA-CASE-XNP-00437] c07 N70-40202
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Tape cartridge with high capacity storage of endless-loop magnetic tape
[NASA-CASE-IGS-00769] c14 N70-41647
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ribbon loop for shuttering optical or fluid
passageways
[NASA-CASE-ARC-10516-1] c70 N74-21300
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wires --- by storing extra length of wire in
stretchable loop
[NASA-CASE-LAR-10168-1] c33 N74-22865
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[NASA-CASE-LEW-11981-2] c34 N79-20336
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[NASA-CASE-MSC-18035-1] c32 N81-15179
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[NASA-CASE-LAR-12772-1] c33 N81-15195

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[NASA-CASE-XLA-00142] c02 N70-33286
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of high speed flight and low drag for low
speed takeoff or landing upon presently
existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

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[NASA-CASE-GSC-12022-1] c44 N76-28635
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substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609

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for dc transformer
[NASA-CASE-NPO-14617-1] c33 N79-26311

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Method and photodetector device for locating
abnormal voids in low density materials
[NASA-CASE-MPS-20044] c14 N71-28993
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therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037
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[NASA-CASE-MPS-20607-1] c37 N76-19436
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[NASA-CASE-ARC-11040-2] c24 N78-27184
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composites
[NASA-CASE-ARC-11040-1] c24 N79-16915
Catalysts for polyimide foams from aromatic
isocyanates and aromatic dianhydrides ---
flame retardant foams
[NASA-CASE-ARC-11107-1] c25 N80-16116

LOW FREQUENCIES
Determining sway of buildings by low frequency
device using pendulum
[NASA-CASE-IMP-00479] c14 N70-34794

LOW GRAVITY MANUFACTURING
Method for manufacturing mirrors in zero gravity
environment
[NASA-CASE-MSC-12611-1] c12 N76-15189

LOW MOLECULAR WEIGHTS
Process for preparing high molecular weight
polyaryloxysilanes from lower molecular weight
forms
[NASA-CASE-IMP-08674] c06 N71-28807

LOW NOISE
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deep space network communication system
[NASA-CASE-NPO-11569] c10 N73-26229
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[NASA-CASE-NPO-13490-1] c36 N76-31512

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plant modeling for high-gain control
[NASA-CASE-LAR-12215-1] c08 N79-23097

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pressure for application to respiration rate
studies
[NASA-CASE-FRC-10022] c12 N71-26546
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[NASA-CASE-IGS-01293-1] c35 N79-33450

LOW SPEED
Variable geometry manned orbital vehicle having
high aerodynamic efficiency over wide speed
range and incorporating auxiliary pivotal wings

[NASA-CASE-XLA-03691] c31 N71-15674
Device utilizing RC rate generators for
continuous slow speed measurement
[NASA-CASE-IMP-02966] c10 N71-24863

LOW TEMPERATURE
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[NASA-CASE-LEW-12081-3] c28 N81-14103

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package for operation in low temperature
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[NASA-CASE-IGS-10010] c03 N72-15986
Low thrust monopropellant engine --- low
temperature environments
[NASA-CASE-GSC-12194-2] c20 N79-15151
Low temperature latching solenoid --- cryogenic
fluid storage and flow control
[NASA-CASE-MSC-18106-1] c33 N80-14338
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optic connections --- cryogenic systems
[NASA-CASE-MSC-18627-1] c74 N81-15818

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composite materials
[NASA-CASE-IMP-02964] c14 N71-17659
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machines at low temperatures
[NASA-CASE-IMP-10968] c14 N71-24234
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temperature environments
[NASA-CASE-GSC-12194-2] c20 N79-15151

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environment for spacecraft mechanisms
[NASA-CASE-XMS-01620] c23 N71-15673

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[NASA-CASE-XAC-00060] c09 N70-39915
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and low voltage standing wave ratio
[NASA-CASE-MSC-12101] c09 N71-18720
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protecting low voltage electric generator and
power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366

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environments
[NASA-CASE-XLE-01765] c18 N71-10772
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[NASA-CASE-XLE-10337] c15 N71-24046
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[NASA-CASE-MPS-21040-1] c06 N73-30098
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[NASA-CASE-MPS-22411-1] c37 N74-21058
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[NASA-CASE-LEW-11076-1] c37 N74-21061
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[NASA-CASE-GSC-12636-1] c37 N80-29705

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shaft to retain lubricating oils around shaft
[NASA-CASE-XLE-05130-2] c15 N71-19570

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preformed components
[NASA-CASE-LEW-11026-1] c15 N73-33383
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[NASA-CASE-KSC-10723-1] c37 N75-13265
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[NASA-CASE-KSC-10565] c09 N72-25250
- Electrodeless lamp circuit driven by induction
[NASA-CASE-MFS-21214-1] c09 N73-30181
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[NASA-CASE-NPO-11429-1] c74 N77-21941
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[NASA-CASE-XNP-04167-3] c36 N77-19416
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[NASA-CASE-NPO-11510-1] c33 N77-21315
- System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems
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[NASA-CASE-XMS-07168] c07 N71-11300
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[NASA-CASE-MFS-21042] c07 N72-25171
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[NASA-CASE-XLA-00934] c14 N71-22765
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[NASA-CASE-LAR-10056] c05 N71-12351
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[NASA-CASE-XLA-00934] c14 N71-22765
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[NASA-CASE-MFS-20130] c28 N71-27585
- Three transceiver lunar emergency system to relay voice communication of astronaut
[NASA-CASE-MFS-21042] c07 N72-25171
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[NASA-CASE-XMS-04798] c11 N71-21474
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- [NASA-CASE-XLA-00493] c11 N70-34786
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[NASA-CASE-XPR-00929] c31 N70-34966
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[NASA-CASE-MFS-20130] c28 N71-27585
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[NASA-CASE-XNP-01412] c15 N70-42034
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[NASA-CASE-XNP-09770] c15 N71-20440
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[NASA-CASE-XNP-09770-3] c11 N71-27036
- Portable penetrometer for analyzing soil characteristics
[NASA-CASE-MFS-20774] c14 N73-19420
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[NASA-CASE-MSC-12408-1] c46 N74-13011
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[NASA-CASE-MFS-20400] c31 N71-18611
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[NASA-CASE-MFS-13929] c15 N71-27091
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[NASA-CASE-XMS-01615] c05 N70-41329

M

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- Wind tunnel supplementary Mach number minimum section insert
[NASA-CASE-LAR-12532-1] c09 N80-22369

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- Rotary impact-type rock drill for recovering rock cuttings
[NASA-CASE-XNP-07478] c14 N69-21923
- Description of protective device for providing safe operating conditions around work piece in machine or metal working tool
[NASA-CASE-XLB-01092] c15 N71-22797
- Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798
- Development and characteristics of frusto-conical die nib for extrusion of refractory metals
[NASA-CASE-XLE-06773] c15 N71-23817
- Design and development of layout tool for machine shop use to locate point in precise reference to straight or bowed reference edge
[NASA-CASE-FRC-10005] c15 N71-26145
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[NASA-CASE-XAC-09489-1] c15 N71-26673
- Caterpillar micropositioner for positioning machine tools adjacent to workpiece
[NASA-CASE-GSC-10780-1] c14 N72-16283
- Geneva mechanism --- including star wheel and driver
[NASA-CASE-NPO-13281-1] c37 N75-13266
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[NASA-CASE-NPO-13059-1] c37 N76-20480
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[NASA-CASE-LAR-11658-1] c37 N77-14478
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[NASA-CASE-GSC-12584-1] c76 N80-32246
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MACHINING

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initiation and cessation of rain
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[NASA-CASE-NPO-13205-1] c31 N74-32917

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functioning as beam waveguide for mechanical
and medical applications
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resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489
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magnesium alloys used in aerospace applications
[NASA-CASE-LAR-10953-1] c17 N73-27446

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thermal protective sleeves to magnesium alloy
conical shell components with different
thermal coefficients
[NASA-CASE-XLA-01262] c15 N71-21404
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magnesium alloys used in aerospace applications
[NASA-CASE-LAR-10953-1] c17 N73-27446

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in MgO
[NASA-CASE-NPO-10774] c06 N72-17095

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superconducting materials acting as permanent
magnet
[NASA-CASE-XLE-02824] c03 N69-39890
Relay circuit breaker with magnetic latching to
provide conductive and nonconductive paths for
current devices
[NASA-CASE-MSC-11277] c09 N71-29008
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[NASA-CASE-MSC-18106-1] c33 N80-14338

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[NASA-CASE-NPO-14617-1] c33 N79-26311

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[NASA-CASE-XLE-01124] c28 N71-14043

MAGNETIC CIRCUITS
Ion engine with magnetic circuit for optimal
discharge
[NASA-CASE-XLE-01124] c28 N71-14043

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[NASA-CASE-INP-00431] c09 N70-38998
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braking force on secondary coil
[NASA-CASE-XLE-05079] c15 N71-17652
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[NASA-CASE-LAR-10372] c09 N71-18599
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[NASA-CASE-GSC-12010-1] c74 N78-18905

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[NASA-CASE-XLA-03660] c15 N71-21060
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[NASA-CASE-XLA-00327] c25 N71-29184
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[NASA-CASE-GSC-11551-1] c37 N76-18459
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[NASA-CASE-GSC-11978-1] c37 N77-17464

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[NASA-CASE-IGS-00458] c09 N70-38604
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amplitude and waveform
[NASA-CASE-IGS-00131] c09 N70-38995
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[NASA-CASE-INP-08836] c09 N71-12515
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blocking oscillator feedback for interrogation
without loss of digital information
[NASA-CASE-IGS-03303] c08 N71-18595
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device for steering bipolar current pulses to
memory units
[NASA-CASE-NPO-10201] c08 N71-18694
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application in selection matrices for digital
memories
[NASA-CASE-INP-01318] c10 N71-23033
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transformer
[NASA-CASE-ERC-10075] c09 N71-24800
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[NASA-CASE-NPO-10242] c09 N71-24803
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with warning signal for electrical power
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[NASA-CASE-ERC-10125] c09 N71-24893
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pulsating thermally cycled magnetic core
[NASA-CASE-XAC-03740] c14 N71-26135
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[NASA-CASE-INP-01012] c08 N71-28925
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indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747
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bidirectional currents through numerous loads
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[NASA-CASE-NPO-10743] c08 N72-21199
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[NASA-CASE-NPO-11966-1] c33 N74-17928

MAGNETIC DIPOLES
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generated by interaction of magnetic dipole
between test specimen and ambient magnetic field
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providing the magnetic fields for both the
magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406
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[NASA-CASE-GSC-12010-1] c74 N78-18905
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[NASA-CASE-GSC-12582-1] c37 N81-16469

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[NASA-CASE-XLA-00330] c33 N70-34540
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[NASA-CASE-XLA-01127] c07 N70-41372
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and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
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discharge
[NASA-CASE-XLE-01124] c28 N71-14043
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[NASA-CASE-IGS-01587] c14 N71-15962
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[NASA-CASE-IGS-07514] c23 N71-16099
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orienting magnetic flux sensing instrument in
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 [NASA-CASE-XGS-03390] c03 N71-23187
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 [NASA-CASE-XGS-01013] c14 N71-23725
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- Segmented superconducting magnet producing staggered magnetic field and suitable for broadband traveling wave masers
 [NASA-CASE-XGS-10518] c16 N71-28554
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 [NASA-CASE-LEW-10835-1] c28 N72-22771
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 [NASA-CASE-KSC-10698] c07 N73-20175
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 [NASA-CASE-LEW-12508-1] c34 N78-17335
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 [NASA-CASE-LEW-12081-3] c28 N81-14103
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 [NASA-CASE-NPO-11336-1] c76 N79-16678
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 [NASA-CASE-INP-04183] c09 N69-24329
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 [NASA-CASE-XAC-02407] c14 N69-27423
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 [NASA-CASE-XGS-01881] c09 N70-40123
- Development of hybrid bearing lubrication system with combination of standard type lubrication and magnetic flux field for earth atmosphere and space environment operation
 [NASA-CASE-INP-01641] c15 N71-22997
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 [NASA-CASE-ERC-10075] c09 N71-24800
- Magnetic flux pump for changing intensity of magnetic fields
 [NASA-CASE-INP-01187] c15 N73-28516
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 [NASA-CASE-INP-01188] c15 N73-32361
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 [NASA-CASE-GSC-11079-1] c37 N75-18574
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 [NASA-CASE-GSC-12518-1] c33 N80-19424
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 [NASA-CASE-INP-03793] c15 N71-24833
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 [NASA-CASE-INP-05114-3] c15 N71-24865
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 [NASA-CASE-ILA-01354] c25 N70-36946
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 [NASA-CASE-INP-04231] c14 N73-32325
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 [NASA-CASE-XLE-01512] c12 N70-40124
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 [NASA-CASE-XAC-02407] c14 N69-27423
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 [NASA-CASE-XGS-01587] c14 N71-15962
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 [NASA-CASE-XAC-05462-2] c10 N72-17171
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 [NASA-CASE-NPO-13388-1] c35 N76-16390
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 [NASA-CASE-INP-07481] c25 N69-21929
- Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
 [NASA-CASE-NPO-13663-1] c35 N77-14406
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 [NASA-CASE-INP-01187] c15 N73-28516
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 [NASA-CASE-INP-01188] c15 N73-32361
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 [NASA-CASE-LEW-11672-1] c37 N74-27904
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 [NASA-CASE-INP-02778] c08 N71-22710
- Magnetic recording head composed of ferrite core coated with thin film of aluminum-iron-silicon alloy
 [NASA-CASE-GSC-10097-1] c08 N71-27210
- Thermomagnetic recording and magnetic-optic playback system
 [NASA-CASE-NPO-10872-1] c35 N79-16246
- Manganese bismuth films with narrow transfer characteristics for Curie-point switching
 [NASA-CASE-NPO-11336-1] c76 N79-16678
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 [NASA-CASE-INS-06949] c09 N69-21467
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 [NASA-CASE-XGS-00174] c08 N70-34743
- Magnetic matrix memory system for nondestructive reading of information contained in matrix
 [NASA-CASE-INP-05835] c08 N71-12504
- Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
 [NASA-CASE-XGS-04224] c10 N71-26418
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 - [NASA-CASE-NPO-11481] c21 N73-13644
- Atomic hydrogen storage method and apparatus
 - [NASA-CASE-LEW-12081-1] c28 N78-24365
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 - [NASA-CASE-LAR-11889-2] c37 N78-27424
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 - [NASA-CASE-LAR-11889-1] c35 N79-26372
 - Containerless melting and rapid solidification apparatus and method
 - [NASA-CASE-NFS-25305-1] c35 N81-16427
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 - [NASA-CASE-GSC-12582-1] c37 N81-16469
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 - [NASA-CASE-XLR-02083] c03 N69-39983
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 - [NASA-CASE-XGS-01881] c09 N70-40123
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 - [NASA-CASE-XGS-01587] c14 N71-15962
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 - [NASA-CASE-XGS-04879] c14 N71-20428
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 - [NASA-CASE-IAC-03740] c14 N71-26135
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[NASA-CASE-XKS-10543] c07 N71-26292
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[NASA-CASE-XLA-03497] c15 N71-23052
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vertical position for removal from vehicle
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stretcher
[NASA-CASE-XNP-06589] c05 N71-23159
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[NASA-CASE-XLA-00203] c14 N70-34161
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[NASA-CASE-HQN-10832-1] c71 N74-21014
Optical signature generating and correlating
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[NASA-CASE-XLA-05369] c31 N71-15687
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[NASA-CASE-XLA-01339] c31 N71-15692
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[NASA-CASE-XLA-09881] c31 N71-16085
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[NASA-CASE-XMF-06031] c15 N71-15606

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PERTURBATION THEORY

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PLASMA DYNAMICS

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[NASA-CASE-LEW-11496-1] c44 N77-14580

Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ARC-10915-2] c27 N79-18052

Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-4] c44 N80-18555

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[NASA-CASE-LAR-10765-1] c32 N73-20740

Mechanical bonding of metal
[NASA-CASE-LEW-12941-1] c31 N81-16329

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Development of flexible thermocouple in form of tape for adaptation to special temperature measuring conditions
[NASA-CASE-LEW-11072-1] c14 N73-24472

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[NASA-CASE-LEW-12649-1] c44 N78-25530

Tackifier for addition polyimides
[NASA-CASE-LAR-12642-1] c27 N80-18179

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[NASA-CASE-MFS-25181-1] c27 N81-16238

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Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft
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Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022

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[NASA-CASE-LAR-10121-1] c15 N71-26721

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[NASA-CASE-XLA-11154] c07 N72-21117

Molding apparatus --- for thermosetting plastic compositions
[NASA-CASE-LAR-10489-2] c31 N74-32920

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[NASA-CASE-ARC-10592-2] c27 N76-32315

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[NASA-CASE-ARC-10915-3] c24 N77-24200

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[NASA-CASE-HSC-18430-1] c31 N80-17292

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[NASA-CASE-XLB-05130] c15 N69-21362

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[NASA-CASE-FRC-10081-1] c37 N77-14477

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[NASA-CASE-GSC-12171-1] c33 N79-28416

Floating nut retention system
[NASA-CASE-HSC-16938-1] c37 N80-23653

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Selective plating of etched circuits without removing previous plating
[NASA-CASE-XGS-03120] c15 N71-24047

Metal plating process employing spraying of metallic power/peening particle mixture
[NASA-CASE-GSC-11163-1] c15 N73-32360

Scanning nozzle plating system --- for etching or plating metals on substrates without masking
[NASA-CASE-NPO-11758-1] c31 N74-23065

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Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252

Platinum resistance thermometer circuit
[NASA-CASE-HSC-12327-1] c35 N77-27368

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[NASA-CASE-HFS-22671-2] c35 N77-17426

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[NASA-CASE-NPO-10872-1] c35 N79-16246

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Platform with several ground effect pads and plenum chambers
[NASA-CASE-HFS-14685] c31 N71-15689

Development of filter apparatus for gas separation and characteristics of filter cell support frame for improved operation
[NASA-CASE-HSC-12297] c14 N72-23457

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[NASA-CASE-ARC-11114-1] c51 N81-14605

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Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

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Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246

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Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421

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Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117

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Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XPR-09479] c14 N69-27503

Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505

Control of gas flow from pressurized vessel by thermal expansion of metal plug
[NASA-CASE-NPO-10298] c12 N71-17661

Heated porous plug microthruster for spacecraft reaction jet controlled systems such as fuel flow regulation, propellant disassociation, and heat transfer augmentation
[NASA-CASE-GSC-10640-1] c28 N72-18766

High temperature penetrator assembly with bayonet plug and ramp-activated lock
[NASA-CASE-HSC-18526-1] c35 N80-19468

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Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469

Pneumatic control of telescopic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321

Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409

Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975

Pneumatic foot pedal operated fluidic exercising device
[NASA-CASE-HSC-11561-1] c05 N73-32014

Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465

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[NASA-CASE-HFS-23696-1] c54 N78-32724

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[NASA-CASE-HSC-11010] c15 N71-19485

Pneumatic cantilever beams and platform for space erectable structure
[NASA-CASE-XLA-01731] c32 N71-21045

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[NASA-CASE-XMS-01905] c12 N71-21089

Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XMF-06515] c14 N71-23227

Pneumatic servoamplifier for controlling flow regulation
[NASA-CASE-HSC-12121-1] c15 N71-27147

Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-HSC-12393-1] c02 N73-26006

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[NASA-CASE-HFS-20922-1] c18 N74-22136

Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465

Pneumatic inflatable end effector
[NASA-CASE-HFS-23696-1] c54 N78-32724

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[NASA-CASE-LAR-11695-2] c37 N80-18402

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Electronic background suppression field scanning sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980

X ray collimating structure for focusing radiation directly onto detector
[NASA-CASE-XHQ-04106] c14 N70-40240

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Development of reflector system for application to line-of-sight pointing and tracking telescopes
[NASA-CASE-NPO-10468] c23 N71-33229

All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424

Magnetic suspension and pointing system --- on a carrier vehicle
[NASA-CASE-LAR-11889-1] c35 N79-26372

Solar tracking system --- with pointing control circuits
[NASA-CASE-HFS-23999-1] c44 N79-28667

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Spin phase synchronization of cartwheel satellite in polar orbit
[NASA-CASE-IGS-05579] c31 N71-15676

POLARIMETERS

Automatic polarimeter capable of measuring transient birefringence changes in electro-optic materials
[NASA-CASE-XNP-08883] c23 N71-16101

Two beam interferometer-polarimeter
[NASA-CASE-NPO-11239] c14 N73-12446

Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434

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[NASA-CASE-XMP-08217] c03 N71-23239
Peak polarity selector for monitoring waveforms [NASA-CASE-FRC-10010] c10 N71-24862
Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
[NASA-CASE-ARC-10101-1] c09 N71-33109

POLARIZATION (CHARGE SEPARATION)

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[NASA-CASE-HFS-23186-2] c24 N78-25137

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System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982
Paraday rotation measurement method and apparatus --- to receive RF signals from spacecraft which exhibits polarization characteristics due to spin stabilization
[NASA-CASE-NPO-14839-1] c35 N80-16313
Multiprism collimator
[NASA-CASE-GSC-12608-1] c35 N81-12387

POLARIZATION CHARACTERISTICS

Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067

POLARIZED ELECTROMAGNETIC RADIATION

Device for improving efficiency of parabolic horn antenna system for linearly polarized signals
[NASA-CASE-XMP-00611] c09 N70-35219
Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-XMP-00540] c09 N70-35382
Antenna feed system for receiving circular polarization and transmitting linear polarization
[NASA-CASE-NPO-14362-1] c32 N80-16261
Coaxial phased array antenna
[NASA-CASE-NSC-16800-1] c32 N81-14187

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Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053
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[NASA-CASE-LAR-12285-1] c35 N80-28687

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[NASA-CASE-GSC-12225-1] c74 N79-14891

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Conforming polisher for aspheric surfaces of revolution with inflatable tube
[NASA-CASE-XGS-02884] c15 N71-22705
Method of forming a sharp edge on an optical device
[NASA-CASE-GSC-12348-1] c74 N80-24149

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[NASA-CASE-NPO-13402-1] c37 N76-18457
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497
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[NASA-CASE-LEW-12990-1] c07 N78-27122
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[NASA-CASE-LEW-12590-1] c25 N81-19245

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Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
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[NASA-CASE-LAR-11675-1] c45 N76-17656
Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742
Method for detecting pollutants --- through chemical reactions and heat treatment
[NASA-CASE-LAR-11405-1] c45 N76-31714
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[NASA-CASE-LAR-12308-1] c45 N80-19664

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Vitra-violet process for producing flame resistant polyamides and products produced

thereby --- protective clothing for high oxygen environments

[NASA-CASE-NSC-16074-1] c27 N80-26446
Thermoset-thermoplastic aromatic polyamides
[NASA-CASE-LAR-12723-1] c27 N81-15107

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[NASA-CASE-ARC-11008-1] c27 N78-31232

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[NASA-CASE-NPO-10863] c06 N70-11251

Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10447] c06 N70-11252

Inhibited solid propellant composition containing beryllium hydride
[NASA-CASE-NPO-10866-1] c28 N79-14228

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Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XNS-04935] c05 N71-11190

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Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635
Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609
Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910
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[NASA-CASE-NPO-15250-1] c25 N81-16174

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[NASA-CASE-NPO-10596] c06 N71-25929
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[NASA-CASE-NPO-13205-1] c31 N74-32917

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[NASA-CASE-HFS-10506] c06 N73-30100
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[NASA-CASE-HFS-10507] c06 N73-30101
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[NASA-CASE-LAR-11397-1] c27 N75-29263
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[NASA-CASE-LAR-12181-1] c27 N78-17205
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[NASA-CASE-ARC-11040-2] c24 N78-27184
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[NASA-CASE-LAR-12054-1] c27 N79-33316
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[NASA-CASE-LAR-12742-1] c24 N81-12174
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[NASA-CASE-LEW-11325-1] c06 N73-27980
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[NASA-CASE-LEW-10199-1] c27 N74-23125
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[NASA-CASE-LEW-12876-1] c27 N80-26447
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[NASA-CASE-LAR-11397-1] c27 N75-29263
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[NASA-CASE-NPO-10862] c06 N72-22107
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[NASA-CASE-MPS-20979] c06 N72-25151
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[NASA-CASE-MPS-10507] c06 N73-30101
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[NASA-CASE-MPS-11492] c06 N73-30102
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 [NASA-CASE-XLA-01745] c33 N71-28903
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- [NASA-CASE-XLA-00302] c15 H71-16077
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- [NASA-CASE-XNP-02507] c31 H71-17679
- Development of thermal insulation system for wing and control surfaces of hypersonic aircraft and reentry vehicles
- [NASA-CASE-XLA-00892] c33 H71-17897
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- [NASA-CASE-IGS-02011] c15 H71-20739
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- [NASA-CASE-IGS-04799] c18 H71-24183
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- [NASA-CASE-XNP-09469] c24 H71-25555
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- [NASA-CASE-XLA-01745] c33 H71-28903
- Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
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- [NASA-CASE-GSC-10361-1] c18 H72-23581
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- Nonflammable coating compositions --- for use in high oxygen environments
- [NASA-CASE-MPS-20486-2] c27 H74-17283
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- [NASA-CASE-LEW-12550-1] c24 H77-19170
- Abrasion resistant coatings for plastic surfaces
- [NASA-CASE-ARC-10915-3] c24 H77-24200
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- [NASA-CASE-ARC-11042-1] c24 H78-14096
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- [NASA-CASE-ARC-11110-1] c37 H78-32434
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- [NASA-CASE-ARC-11104-1] c15 H79-26100
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- [NASA-CASE-LEW-13169-1] c26 H80-14232
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- [NASA-CASE-MSC-18382-1] c27 H80-24440
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- [NASA-CASE-NPO-10214] c10 H71-26577
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- [NASA-CASE-NPO-11406] c08 H73-12175
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- [NASA-CASE-NPO-11548] c07 H73-26118
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- [NASA-CASE-MPS-22671-1] c35 H75-21582
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- [NASA-CASE-MSC-18035-1] c32 H81-15179
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- [NASA-CASE-XNS-04545] c15 H71-22878
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- [NASA-CASE-XNP-05634] c15 H71-24834
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- Pulmonary resuscitation method and apparatus with adjustable pressure regulator
- [NASA-CASE-XNS-01115] c05 H70-39922
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Monitoring system for signal amplitude ranges over predetermined time interval
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[NASA-CASE-XLA-00670] c08 N71-12501
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[NASA-CASE-XMP-06519] c09 N71-12519
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[NASA-CASE-XLA-03076] c07 N71-11266
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[NASA-CASE-XGS-01590] c07 N71-12392
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[NASA-CASE-XGS-01021] c08 N71-21042
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Q

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[NASA-CASE-GSC-11862-1] c32 N76-18295

- Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
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- Charge-coupled device data processor for an airborne imaging radar system
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RADAR ECHOES

- Charge-coupled device data processor for an airborne imaging radar system
[NASA-CASE-NPO-13587-1] c32 N77-32342

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[NASA-CASE-NPO-14035-1] c32 N78-18266

- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
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- Radar target for remotely sensing hydrological phenomena
[NASA-CASE-LAR-12344-1] c43 N80-18498

- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-2] c32 N80-32607

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- Radar signal receiver arrangement for extending range and increasing signal to noise ratio
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- Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

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- Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911

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- Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
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- Radar target for remotely sensing hydrological phenomena
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- Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

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[NASA-CASE-ABC-10178-1] c09 N72-17152
Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c33 N80-18287

RADIANT HEATING

High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812
Unfired ceramic insulation for protection from radiant heating environments
[NASA-CASE-NPS-14253] c33 N71-24858
Portable linear-focused solar thermal energy collecting system
[NASA-CASE-NPO-13734-1] c44 N78-10554

RADIATION

Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409
Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N73-12447
Analog to digital converter for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731
Memory device for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

RADIATION ABSORPTION

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ABC-10802-1] c35 N75-30502
Method for making an aluminum or copper substrate panel for selective absorption of solar energy
[NASA-CASE-NPS-23518-1] c44 N79-11469

RADIATION COUNTERS

Particle detector for indicating incidence and energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322
Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430

Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
Radiation or charged particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317
Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293
Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c25 N80-20334

RADIATION DAMAGE

Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage
[NASA-CASE-ABC-10593-1] c33 N74-27682

RADIATION DETECTORS

Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-HSC-12280] c27 N71-16348
Detection instrument for light emitted from ATP biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
Nondispersive gas analysis using radiation detection for quantitative analysis
[NASA-CASE-ABC-10308-1] c06 N72-31141
Radiation source tracker comprised of sectorized matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N73-25462
Radiation or charged particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317
Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091
High field Cds detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088
Flame detector operable in presence of proton radiation
[NASA-CASE-NPS-21577-1] c19 N74-29410
Wide angle sun sensor --- consisting of cylinder, insulation and pair of detectors
[NASA-CASE-NPO-13327-1] c35 N75-23910
Detector absorptivity measuring method and apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551
Wedge immersed thermistor bolometers
[NASA-CASE-XGS-01245-1] c35 N79-33449
Miniature spectrally selective dosimeter
[NASA-CASE-LAR-12469-1] c35 N81-12388
X-ray position detector
[NASA-CASE-NPO-12087-1] c74 N81-19898

RADIATION DISTRIBUTION

Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675

RADIATION DOSAGE

Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
Method for analyzing radiation sensitivity of integrated circuits
[NASA-CASE-NPO-14350-1] c33 N80-14332

RADIATION EFFECTS

Method for temperature compensating semiconductor gages by exposure to high energy radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892

RADIATION HARDENING

Radiation hardening of MOS devices by boron ---
for stabilizing gate threshold potential of
field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329

RADIATION HAZARDS

Miniature spectrally selective dosimeter
[NASA-CASE-LAR-12469-1] c35 N81-12388

RADIATION MEASUREMENT

Development of thermopile with sensor surface to
receive radiant energy and to provide
measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N73-12447

RADIATION MEASURING INSTRUMENTS

Rocket-borne aspect sensor consisting of
radiation sensor, apertured disk, commutator,
and counting circuits
[NASA-CASE-IGS-08266] c14 N69-27432

Infrared scanning system for maintaining
spacecraft orientation with earth reference
[NASA-CASE-XLA-00120] c21 N70-33181

Multiple wavelength radiation measuring
instrument for determining hot body or gas
temperature
[NASA-CASE-XLE-00011] c14 N70-41946

Development of method for improving signal to
noise ratio and accuracy of Wheatstone bridge
type radiation measuring instrument
[NASA-CASE-XLA-02810] c14 N71-25901

Development of thermopile with sensor surface to
receive radiant energy and to provide
measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N73-12447

Phototransistor with base collector junction
diode for integration into photo sensor arrays
[NASA-CASE-MPS-20407] c09 N73-19235

Method and apparatus for measuring
electromagnetic radiation
[NASA-CASE-LEW-11159-1] c14 N73-28488

Design of gamma ray spectrometer for measurement
of intense radiation using Compton scattering
effect
[NASA-CASE-MPS-21441-1] c14 N73-30392

Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949

Cloud cover sensor
[NASA-CASE-NPO-14936-1] c47 N80-26992

RADIATION MEDICINE

Method of producing I-123 --- by bombardment of
cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383

RADIATION PROTECTION

Development of method for protecting large and
oddly shaped areas from radiant and convective
heat
[NASA-CASE-XNP-01310] c33 N71-28852

Cooling and radiation protection of ruby lasers
using copper sulfate solution in alcohol
[NASA-CASE-MPS-20180] c16 N72-12440

Photomultiplier circuit including means for
rapidly reducing the sensitivity thereof ---
and protection from radiation damage
[NASA-CASE-ARC-10593-1] c33 N74-27682

RADIATION SHIELDING

Encapsulated heater forming hollow body for
cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422

Describing hot filament type Bayard-Alpert
ionization gage with ion collector buried or
removed from grid structure
[NASA-CASE-XLA-07424] c14 N71-18482

Sealed housing for protecting electronic
equipment against electromagnetic interference
[NASA-CASE-MSC-12168-1] c09 N71-18600

Internal labyrinth and shield structure to
improve electrical isolation of propellant
feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781

Apparatus for aligning shadow shields and
cryogenic storage tanks in outer space with
the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893

Light shield and cooling apparatus --- high
intensity ultraviolet lamp
[NASA-CASE-LAR-10089-1] c34 N74-23066

RADIATION SOURCES

Sight switch using infrared source and sensor
mounted beside eye
[NASA-CASE-XMF-03934] c09 N71-22985

Apparatus for obtaining isotropic irradiation on
film emulsion from parallel radiation source
[NASA-CASE-MPS-20095] c24 N72-11595

Radiation source tracker comprised of sector
matrix of detectors with output voltages
corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N73-25462

High powered arc electrodes --- producing solar
simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913

Electric arc light source having undercut
recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318

Apparatus and method for determining the
position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

RADIATION SPECTRA

Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041

RADIATION THERAPY

A cervix-to-rectum measuring device in a
radiation applicator for use in the treatment
of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

RADIATION TOLERANCE

Ultraviolet radiation resistant alkali-metal
silicate coatings for temperature control of
spacecraft
[NASA-CASE-IGS-04119] c18 N69-39979

Doping silicon material with gadolinium to
increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607

Improving radiation resistance of silicon
semiconductor junctions by doping with lithium
[NASA-CASE-IGS-07801] c09 N71-12513

Radiation hardening of MOS devices by boron ---
for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730

Method for analyzing radiation sensitivity of
integrated circuits
[NASA-CASE-NPO-14350-1] c33 N80-14332

RADIATIVE HEAT TRANSFER

Heat flux sensor assembly with proviso for heat
shield to reduce radiative transfer between
sensor elements
[NASA-CASE-XNS-05909-1] c14 N69-27459

Capillary radiator for carrying heat transfer
liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035

Transient heat transfer gage for measuring total
radiant intensity from far ultraviolet and
ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641

Construction and method of arranging plurality
of ion engines to form cluster thereby
increasing efficiency and control by
decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081

RADIATORS

Development and characteristics of natural
circulation radiator for use with nuclear
power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046

RADIO ANTENNAS

Low loss parasitic probe antenna for prelaunch
tests of spacecraft antennas
[NASA-CASE-IKS-09348] c09 N71-13521

VHF/UHF parasitic probe antenna for spacecraft
communication
[NASA-CASE-IKS-09340] c07 N71-24614

Development and characteristics of extensible
dipole antenna using deformable tubular
metallic strip element
[NASA-CASE-HQN-00937] c07 N71-28979

Highly efficient antenna system using a
corrugated horn and scanning hyperbolic
reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365

RADIO ASTRONOMY

Synchronous detection system for detecting weak
radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723

RADIO BEACONS

RF beam center location method and apparatus for
power transmission system
[NASA-CASE-NPO-13821-1] c44 N78-28594

RADIO COMMUNICATION

System for synchronizing synthesizers of
communication systems

RADIO CONTROL

SUBJECT INDEX

[NASA-CASE-GSC-12148-1] c32 N79-20296

RADIO CONTROL

Radio frequency controlled solid state switch
[NASA-CASE-ABC-10136-1] c09 N72-22202

RADIO EQUIPMENT

System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

RADIO FREQUENCIES

Helical coaxial resonator RF filter
[NASA-CASE-IGS-02816] c07 N69-24323

Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-INP-09422] c07 N71-19436

Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-INP-08665] c10 N71-19467

System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-IGS-02610] c14 N71-23174

Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
[NASA-CASE-IGS-01418] c09 N71-23573

Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-INP-09830] c14 N71-26266

High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430

Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569

Radio frequency source resistance measuring instruments of varied design
[NASA-CASE-NPO-11291-1] c14 N73-30388

Multichannel logarithmic RF level detector
[NASA-CASE-LAR-11021-1] c32 N76-14321

Ion and electron detector for use in an ICR spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N80-18253

Precise RF timing signal distribution to remote stations --- fiber optics
[NASA-CASE-NPO-14749-1] c32 N81-14186

Pulsed phase locked loop strain monitor
[NASA-CASE-LAR-12772-1] c33 N81-15195

RADIO FREQUENCY DISCHARGE

Electric discharge for treatment of trace contaminants
[NASA-CASE-ABC-10975-1] c33 N79-15245

RADIO FREQUENCY HEATING

Gyrotron transmitting tube
[NASA-CASE-LEW-13429-1] c33 N81-16384

RADIO FREQUENCY INTERFERENCE

Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
[NASA-CASE-YER-11019] c09 N71-23598

System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265

RADIO FREQUENCY SHIELDING

Gunn effect microwave diodes with RF shielding
[NASA-CASE-EEC-10119] c26 N72-21701

Process for baking RF shielded cable connector assemblies and resulting structures
[NASA-CASE-GSC-12115-1] c09 N73-28083

RADIO INTERFEROMETERS

System for real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N80-14603

RADIO RECEIVERS

Radio receiver with array of independently steerable antennas for deep space communication
[NASA-CASE-XLA-00901] c07 N71-10775

Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-IGS-00740] c07 N71-23098

Paraday rotation measurement method and apparatus --- to receive RF signals from spacecraft which exhibits polarization characteristics due to spin stabilization
[NASA-CASE-NPO-14839-1] c35 N80-16313

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N80-18253

Interferometric locating system
[NASA-CASE-NPO-14173-1] c04 N80-32359

RADIO RELAY SYSTEMS

Satellite radio communication system with remote steerable antenna
[NASA-CASE-INP-02389] c07 N71-28900

Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265

RADIO SIGNALS

Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309

Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-INP-09832] c30 N71-23723

Baseband signal combiner for antenna array
[NASA-CASE-NPO-14641-1] c32 N79-32408

RADIO SOURCES (ASTRONOMY)

Conical scan tracking system employing a large antenna
[NASA-CASE-NPO-14009-1] c32 N79-13214

RADIO STARS

System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-IGS-02610] c14 N71-23174

RADIO TELEMETRY

Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-IGS-01812] c07 N71-23001

RADIO TELESCOPES

Antenna grout replacement system
[NASA-CASE-NPO-15205-1] c37 N81-19457

RADIO TRANSMITTERS

Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194

Aircraft-mounted crash-activated transmitter device
[NASA-CASE-HFS-16609-3] c03 N76-32140

RADIO WAVES

Gunn effect microwave diodes with RF shielding
[NASA-CASE-EEC-10119] c26 N72-21701

RADIOACTIVE ISOTOPES

Thermally cascaded thermoelectric generator with radioisotopic heat source
[NASA-CASE-NPO-10753] c03 N72-26031

Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876

RADIOBIOLOGY

Production of I-123 for use as radiopharmaceutical for low radiation exposure
[NASA-CASE-LEW-10518-1] c24 N72-33681

RADIOGRAPHY

Nondestructive radiographic tests of resistance welds
[NASA-CASE-INP-02588] c15 N71-18613

Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737

RADIOLYSIS

Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458

RADIOMETERS

Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-XLA-04556] c14 N69-27488

Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-INP-09701] c14 N71-26475

Black body radiometer having isothermally surrounded cavity for ultraviolet, visible,

SUBJECT INDEX

READOUT

and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27323

Thermoelectric radimeter using polymer film as capacitor
[NASA-CASE-ARC-10138-1] c14 N72-24477

Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409

Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
[NASA-CASE-ERC-10081] c14 N72-28437

Radiometric measuring system for solar activity and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432

Steady state thermal radiometers
[NASA-CASE-MFS-21108-1] c34 N74-27861

RADIOSONDES
Induction powered biological radiosonde
[NASA-CASE-ARC-11120-1] c52 N80-18691

RAIN
Precipitation detector and mechanism for stopping and restarting machinery at initiation and cessation of rain
[NASA-CASE-XLA-02619] c10 N71-26334

Environmental fog/rain visual display system for aircraft simulators
[NASA-CASE-ARC-11158-1] c09 N79-33220

RAMJET ENGINES
Telescoping-spike supersonic nozzle for turbojet or ramjet engines
[NASA-CASE-XLE-00005] c28 N70-39899

Hypersonic airbreathing missile
[NASA-CASE-LAB-12264-1] c15 N78-32168

RAMPS (STRUCTURES)
Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480

RANDOM ACCESS MEMORY
Memory-based parallel data output controller
[NASA-CASE-GSC-12447-1] c60 N80-21987

RANDOM LOADS
Fatigue testing device applying random discrete load levels to test specimen and applicable to aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003

RANDOM NOISE
Circuits for amplitude limiting of random noise inputs
[NASA-CASE-NPO-10169] c10 N71-24844

Digital servo control of random sound test excitation --- in reverberant acoustic chamber
[NASA-CASE-NPO-11623-1] c71 N74-31148

Random pulse generator
[NASA-CASE-MSC-14131-1] c33 N75-19515

Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308

RANGE (EXTREMES)
Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339

RANGE FINDERS
Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930

Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

Echo tracker/range finder for radars and sonars
[NASA-CASE-NPO-14361-1] c32 N79-26253

RANGE FINDING
Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391

Spacecraft ranging system
[NASA-CASE-NPO-10066] c09 N71-18598

Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209

Loop transponder for regenerating code of nu-type ranging system
[NASA-CASE-NPO-11707] c07 N73-25161

Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAB-10626-1] c19 N74-21015

RARE EARTH COMPOUNDS
Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
[NASA-CASE-XGS-03505] c03 N71-10608

RARE GASES
Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441

RAREFIED GASES
Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-XLA-00327] c25 N71-29184

RATES (PER TIME)
Apparatus and digital technique for coding rate data
[NASA-CASE-LAB-10128-1] c08 N73-20217

RC CIRCUITS
RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
[NASA-CASE-XNP-00906] c09 N70-41655

Device utilizing RC rate generators for continuous slow speed measurement
[NASA-CASE-XNP-02966] c10 N71-24863

Digital data handling circuits for pulse amplifiers
[NASA-CASE-XNP-01068] c10 N71-28739

Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
[NASA-CASE-ARC-10042-2] c10 N72-11256

Active RC filter networks and amplifiers for deep space magnetic field measurement
[NASA-CASE-IAC-05462-2] c10 N72-17171

RC networks with voltage amplifier, RC input circuit, and positive feedback
[NASA-CASE-ARC-10020] c10 N72-17172

Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245

Temperature control system comprised of wheatstone bridge with RC circuit
[NASA-CASE-NPO-11304] c14 N73-26430

Diode-guad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520

REACTION CONTROL
Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160

REACTION KINETICS
Autocatalytic coal liquefaction process
[NASA-CASE-NPO-14076-1] c28 N80-26460

REACTION TIME
An improved synthesis of 2, 4, 8, 10-tetroxaspiro (5.5) undecane
[NASA-CASE-ARC-11243-1] c27 N79-30375

Improved synthesis of polyformals
[NASA-CASE-ARC-11244-1] c27 N79-30376

Pseudonoise code tracking loop
[NASA-CASE-MSC-18035-1] c32 N81-15179

REACTION WHEELS
Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324

REACTIVITY
Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-ILB-04599] c22 N72-20597

REACTOR CORES
Reactor heated in-core diodes for energy conversion
[NASA-CASE-NPO-10542] c09 N72-27228

REACTOR DESIGN
Non-equilibrium radiation nuclear reactor
[NASA-CASE-BQN-10841-1] c73 N78-19920

REACTOR MATERIALS
Zirconium modified nickel-copper alloy
[NASA-CASE-LEW-12245-1] c26 N77-20201

REACTOR PHYSICS
Non-equilibrium radiation nuclear reactor
[NASA-CASE-BQN-10841-1] c73 N78-19920

READOUT
Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864

System for checking status of several double-throw switches by readout indications

REAL TIME OPERATION

SUBJECT INDEX

[NASA-CASE-XLA-08799] c10 N71-27272
Magnetooptic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421
Laser measuring system for incremental assemblies --- measuring wire-wrapped frame assemblies in spark chambers
[NASA-CASE-GSC-12321-1] c36 N80-18380

REAL TIME OPERATION
Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
[NASA-CASE-MSC-13436-1] c05 N73-32015
Real time moving scene holographic camera system
[NASA-CASE-MPS-21087-1] c35 N74-17153
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[NASA-CASE-ERC-10081] c14 N72-28437

Development of electronic detection system for remotely determining number and movement of enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-MFS-21470-1] c44 N74-19870

Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493

Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367

Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529

Remote water monitoring system
[NASA-CASE-LAR-11973-1] c35 N78-27384

Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262

Radar target for remotely sensing hydrological phenomena
[NASA-CASE-LAR-12344-1] c43 N80-18498

Photoelectric detection system
[NASA-CASE-MFS-23776-1] c74 N80-25134

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Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

Method for observing the features characterizing the surface of a land mass
[NASA-CASE-PRC-11013-1] c43 N81-17499

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Catalyst bed element removing tool
[NASA-CASE-XPR-00811] c15 N70-36901

Recovery of aluminum from composite propellants
[NASA-CASE-NPO-14110-1] c28 N81-15119

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Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773

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Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182

RESCUE OPERATIONS

Backpack carrier with retractable legs suitable for lunar exploration and convertible to rescue vehicle
[NASA-CASE-LAR-10056] c05 N71-12351

Development and characteristics of rescue litter with inflatable flotation device for water rescue application
[NASA-CASE-XNS-04170] c05 N71-22748

Method of locating persons in distress --- by using radar imagery from radar reflectors
[NASA-CASE-LAR-11390-1] c32 N77-21267

High visibility air sea rescue panel
[NASA-CASE-MSC-12564-2] c03 N78-25070

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[NASA-CASE-LAR-10203-1] c15 N72-16330

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Lunar landing flight research vehicle
[NASA-CASE-XPR-00929] c31 N70-34966

Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895

RESIDUAL STRESS

Miniature solid state, direction sensitive, stress transducer design with bonded semiconductive piezoresistive element for sensing residual stresses
[NASA-CASE-XNP-02983] c14 N71-21091

Manufacturing process for making perspiration resistant-stress resistant biopotential electrode
[NASA-CASE-MSC-90153-2] c05 N72-25120

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[NASA-CASE-XLA-08254] c14 N71-26161

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Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients
[NASA-CASE-XLA-01262] c15 N71-21404

Covered silicon solar cells and method of manufacture --- with polymeric films
[NASA-CASE-LEW-11065-2] c44 N76-14600

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[NASA-CASE-ARC-10098-1] c06 N71-24739

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[NASA-CASE-MSC-12357] c15 N73-12489

Resin for protecting p-n semiconductor junction surface
[NASA-CASE-ERC-10339-1] c18 N73-30532

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[NASA-CASE-LAR-12019-1] c24 N78-17150

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[NASA-CASE-MSC-90153-2] c05 N72-25120

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[NASA-CASE-MSC-10723-1] c37 N75-13265

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[NASA-CASE-XLB-01783] c28 N70-34175

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[NASA-CASE-NPO-13081-1] c33 N74-22814

Resistive anode image converter
[NASA-CASE-BQN-10876-1] c33 N76-27473

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[NASA-CASE-XAC-00404] c08 N70-40125

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[NASA-CASE-IGS-08269] c23 N71-26206

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[NASA-CASE-MSC-14066-1] c33 N74-27705

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[NASA-CASE-ARC-10639-1] c35 N78-13400

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Quantitative liquid measurements in container by resonant frequencies
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[NASA-CASE-LAB-12016-1] c39 N78-15512
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[NASA-CASE-MSC-11242] c35 N78-17358
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acoustical levitation forces
[NASA-CASE-MFS-25050-1] c71 N81-15767
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operation
[NASA-CASE-GSC-10990-1] c09 N73-26195
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[NASA-CASE-IFS-08403] c05 N71-11202
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[NASA-CASE-FRC-10012] c14 N72-17329
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[NASA-CASE-FRC-10022] c12 N71-26546
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[NASA-CASE-MFS-21415-1] c52 N74-20728
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Metabolic analyzer --- for measuring metabolic
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[NASA-CASE-MFS-21415-1] c52 N74-20728
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[NASA-CASE-KSC-10521] c07 N73-20176
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[NASA-CASE-XNP-01390] c28 N70-41275
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[NASA-CASE-XLE-00685] c28 N70-41992
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[NASA-CASE-MSC-16938-1] c37 N80-23653
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[NASA-CASE-XNP-07587] c15 N71-18701
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[NASA-CASE-GSC-12331-1] c18 N80-14183
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- ROCKET-BORNE INSTRUMENTS**
 Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
 [NASA-CASE-IGS-08266] c14 N69-27432
- ROCKETS**
 Device for detecting hydrogen fires onboard high altitude rockets
 [NASA-CASE-MPS-13130] c10 N72-17173
- ROCKS**
 Rotary impact-type rock drill for recovering rock cuttings
 [NASA-CASE-XNP-07478] c14 N69-21923
 Rock sampling --- apparatus for controlling particle size
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Rock sampling --- method for controlling
particle size distribution
[NASA-CASE-IMP-09755] c46 N74-23069
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[NASA-CASE-MFS-23725-1] c43 N79-31706

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Nuclear thermionic converter ---
tungsten-thorium oxide rods
[NASA-CASE-NPO-13121-1] c73 N77-18891

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Measuring roll alignment of test body with
respect to reference body
[NASA-CASE-GSC-10514-1] c14 N72-20379

ROLLER BEARINGS

Solid lubricant applied to porous roller
bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLB-09527] c15 N71-17688
Semilinear bearing comprising two rows of roller
bearings separated by spherical bearings and
permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982
Low mass rolling element bearing assembly
[NASA-CASE-LEW-11087-1] c15 N73-30458
Method of making rolling element bearings
[NASA-CASE-LEW-11087-2] c37 N74-15128
Bearing material --- composite material with low
friction surface for rolling or sliding contact
[NASA-CASE-LEW-11930-1] c24 N76-22309

ROLLERS

Improving load capacity and fatigue life of
rolling element systems in rockets and missiles
[NASA-CASE-XLB-02999] c15 N71-16052
Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
An improved suspension system for a wheel
rolling on a flat track --- bearings for
directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

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operation in ultrahigh vacuum environment
[NASA-CASE-XLB-09527-2] c15 N71-26189

ROLLING MOMENTS

Star sensor system for roll attitude control of
spacecraft
[NASA-CASE-IMP-01307] c21 N70-41856

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Process permitting application of synthetic
resin coating to irregular-shaped objects at
ambient temperature
[NASA-CASE-IMP-06508] c18 N69-39895

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Drive mechanism for operating reactance attitude
control system for aerospace bodies
[NASA-CASE-IMP-01598] c21 N71-15583
Combination guide and rotary bearing for freely
moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136
Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562
Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

ROTARY WING AIRCRAFT

Aircraft control system for rotary wing aircraft
[NASA-CASE-ERC-10439] c02 N73-19004

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Variable geometry rotor system for direct
control over wake vortex
[NASA-CASE-LAR-10557] c02 N72-11018
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029
Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382
Helicopter rotor airfoil
[NASA-CASE-LAR-12396-1] c02 N79-24558
Acoustically swept rotor --- helicopter noise
reduction
[NASA-CASE-ARC-11106-1] c05 N80-14107
Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c05 N81-19087

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Optical scanner mounted on rotating support
structure with method of compensating for
image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
Laser device for removing material from rotating
object for dynamic balancing
[NASA-CASE-MFS-11279] c16 N71-20400

Phase-locked servo system --- for synchronizing
the rotation of slip ring assembly
[NASA-CASE-MFS-22073-1] c33 N75-13139
Annular momentum control device used for
stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158
Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459
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space stations
[NASA-CASE-MFS-20855-1] c15 N77-10112
Rotatable mass for a flywheel
[NASA-CASE-MFS-23051-1] c37 N79-10422
Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827
Rotary target V-block --- aligning wind tunnel
apparatus for optical measurement
[NASA-CASE-LAR-12007-2] c74 N79-25876
Multi-channel rotating optical interface for
data transmission
[NASA-CASE-NPO-14066-1] c74 N79-34011
Rhomboid prism pair for rotating the plane of
parallel light beams --- laser velocimeters
[NASA-CASE-ARC-11311-1] c74 N81-16882

ROTATING CYLINDERS

Tread drum for animals --- having an electrical
shock station
[NASA-CASE-ARC-10917-1] c51 N78-27733
An improved head for high speed spinner having a
vacuum chuck --- holding silicon chips for
etching
[NASA-CASE-NPO-15227-1] c37 N80-26661

ROTATING DISKS

Poil seal between parts moving relative to each
other
[NASA-CASE-XLB-05130] c15 N69-21362
Rocket-borne aspect sensor consisting of
radiation sensor, apertured disk, combinator,
and counting circuits
[NASA-CASE-IGS-08266] c14 N69-27432
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[NASA-CASE-LEW-12496-1] c07 N78-33101

ROTATING ELECTRICAL MACHINES

Modulating and controlling intensity of light
beam from high temperature source by
servocontrolled rotating cylinders
[NASA-CASE-IMS-04300] c09 N71-19479
Design and development of electric motor with
stationary field and armature windings which
operates on direct current
[NASA-CASE-IGS-05290] c09 N71-25999
Double-induction variable speed system for
constant-frequency electrical power generation
[NASA-CASE-ERC-10065] c09 N71-27364

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artificial gravity environment
[NASA-CASE-IMS-01906] c31 N70-41373
Artificial gravity system for simulating
self-locomotion capability of astronauts in
rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776

ROTATING GENERATORS

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[NASA-CASE-FRC-10071-1] c32 N74-20813
Wind wheel electric power generator
[NASA-CASE-MFS-23515-1] c44 N80-21828

ROTATING MIRRORS

Optical retrodirective modulator with focus
spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
Attitude sensor with scanning mirrors for
detecting orientation of space vehicle with
respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
Optical device containing rotatable prism and
reflecting mirror for generating precise angles
[NASA-CASE-IGS-04173] c19 N71-26674
Method and apparatus for optically monitoring
the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304

ROTATING SHAFTS

Fluid seal formed by flexible disk on rotating
shaft to retain lubricating oils around shaft
[NASA-CASE-XLB-05130-2] c15 N71-19570
Anemometer with braking mechanism to prevent
rotation of wind driven elements
[NASA-CASE-IMP-05224] c14 N71-23726

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Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-IXP-06936] c15 N71-24695

Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-IXP-02862-1] c15 N71-26294

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

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[NASA-CASE-LAR-10620-1] c09 N72-25255

Spiral groove seal --- for rotating shaft
[NASA-CASE-XLB-10326-4] c37 N74-15125

Digital servo controller --- for rotating antenna shaft
[NASA-CASE-KSC-10769-1] c33 N74-29556

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[NASA-CASE-ARC-10461-1] c44 N74-33379

Ergometer calibrator --- for any ergometer utilizing rotating shaft
[NASA-CASE-MFS-21045-1] c35 N75-15932

Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

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[NASA-CASE-MFS-23175-1] c35 N77-30436

Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c37 N78-27425

Rotary electric device
[NASA-CASE-GSC-12138-1] c33 N79-20314

Circumferential shaft seal
[NASA-CASE-LEW-12119-1] c37 N80-28711

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[NASA-CASE-XLA-02809] c15 N71-22982

Mechanical actuator wherein linear motion changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

Positioning mechanism for converting translatory motion into rotary motion
[NASA-CASE-NPO-10679] c15 N72-21462

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Acoustically swept rotor --- helicopter noise reduction
[NASA-CASE-ARC-11106-1] c05 N80-14107

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[NASA-CASE-LAR-11201-1] c35 N78-24515

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[NASA-CASE-LEW-12232-1] c07 N79-10057

ROTOR BLADES (TURBOMACHINERY)

Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-IXP-00816] c28 N71-28928

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[NASA-CASE-XLB-00155] c28 N71-29154

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[NASA-CASE-LEW-10533-2] c37 N74-11300

Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226

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[NASA-CASE-LEW-12608-1] c07 N77-27116

Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148

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[NASA-CASE-LAR-12396-1] c02 N79-24558

ROTOR LIFT

Constant lift rotor for a heavier than air craft
[NASA-CASE-ARC-11045-1] c05 N79-17847

ROTOR SPEED

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[NASA-CASE-MFS-20385] c09 N71-24904

Improved method for driving two-phase turbines with enhanced efficiency
[NASA-CASE-NPO-15037-1] c37 N80-26660

ROTORCRAFT AIRCRAFT

Constant lift rotor for a heavier than air craft

[NASA-CASE-ARC-11045-1] c05 N79-17847

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Multistage, multiple reentry, single rotor, axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895

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[NASA-CASE-IGS-05680] c14 N71-17585

Microwave waveguide switch with rotor position control
[NASA-CASE-IXP-06507] c09 N71-23548

Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-IXP-06936] c15 N71-24695

Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515

Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323

Magnetic field control --- electromechanical torquing devices
[NASA-CASE-MFS-23828-1] c33 N80-17359

Liquid metal slip ring --- aerospace environments
[NASA-CASE-LEW-12277-3] c33 N80-18300

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Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil
[NASA-CASE-NPO-08835-1] c27 N78-33228

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[NASA-CASE-LEW-12358-1] c44 N79-17313

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Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ARC-10196-1] c18 N73-13562

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Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N79-25143

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Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440

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Magnetic method for detection of aircraft position relative to runway
[NASA-CASE-ARC-10179-1] c21 N72-22619

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Retractable runway lights
[NASA-CASE-XLA-00119] c11 N70-33329

Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031

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Environmental fog/rain visual display system for aircraft simulators
[NASA-CASE-ARC-11158-1] c09 N79-33220

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Knife structure for controlling rupture of shock tube diaphragms
[NASA-CASE-XAC-00731] c11 N71-15960

RYDBERG SERIES

A low energy electron magnetometer
[NASA-CASE-LAR-12706-1] c35 N81-19428

S

SABOT PROJECTILES

Hypervelocity gun --- using both electric and chemical energy for projectile propulsion
[NASA-CASE-XLE-03186-1] c09 N79-21084

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Helmet and torso tiedown mechanism for shortening pressure suits upon inflation
[NASA-CASE-IXS-00784] c05 N71-12335

Positive locking check valve for stopping reversed flow
[NASA-CASE-IXS-09310] c15 N71-22706

Description of protective device for providing safe operating conditions around work piece in machine or metal working tool

SAFETY FACTORS

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[NASA-CASE-XLE-01092] c15 N71-22797
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[NASA-CASE-XLA-07473] c15 N71-24895
Device for generating and controlling combustion products for testing of fire detection system

[NASA-CASE-GSC-11095-1] c14 N72-10375
Restraint torso for increased mobility and reduced physiological effects while wearing pressurized suits

[NASA-CASE-NSC-12397-1] c05 N72-25119
Totally confined explosive welding --- apparatus to reduce noise level and protect personnel during explosive bonding

[NASA-CASE-LAR-10941-1] c37 N74-21057
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft

[NASA-CASE-LAR-10753-1] c08 N74-30421
Shoulder harness and lap belt restraint system

[NASA-CASE-ARC-10519-2] c05 N75-25915
Fifth wheel

[NASA-CASE-PRC-10081-1] c37 N77-14477
Microwave power transmission beam safety system

[NASA-CASE-NPO-14224-1] c33 N80-18287
Safety shield for vacuum/pressure chamber viewing port

[NASA-CASE-GSC-12513-1] c31 N81-19343

SAFETY FACTORS

Safety flywheel --- using flexible materials energy storage

[NASA-CASE-HQN-10888-1] c44 N79-14527

SARA EQUATIONS

Cosmic dust analyzer

[NASA-CASE-NSC-13802-2] c35 N76-15431

SALT BATHS

Application techniques for protecting materials during salt bath brazing

[NASA-CASE-XLE-00046] c15 N70-33311

SAMARIUM

Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells

[NASA-CASE-XLE-10715] c26 N71-23292

SAMPLERS

Portable vacuum probe surface sampler for sampling large surface areas with relatively light loading densities of microorganisms

[NASA-CASE-LAR-10623-1] c14 N73-30395

Automated syringe sampler

[NASA-CASE-LAR-12308-1] c45 N80-19664

Method and device for destructive detection of a substance --- useful in determining the concentration of carbon fibers or pollutant particles

[NASA-CASE-NPO-14940-1] c35 N80-21723

SAMPLES

Plural output optometric sample cell and analysis system

[NASA-CASE-NPO-10233-1] c74 N78-33913

SAMPLING

Impact bit for cutting, collecting, and storing samples such as lunar rock cuttings

[NASA-CASE-XNP-01412] c15 N70-42034

Design and development of fluid sample collector

[NASA-CASE-XMS-06767-1] c14 N71-20435

Design and development of two types of atmosphere sampling chambers

[NASA-CASE-NPO-11373] c13 N72-25323

Digital to analog converter for sampled signal reconstruction

[NASA-CASE-NSC-12458-1] c08 N73-32081

Rock sampling --- apparatus for controlling particle size

[NASA-CASE-XNP-10007-1] c46 N74-23068

Rock sampling --- method for controlling particle size distribution

[NASA-CASE-XNP-09755] c46 N74-23069

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[NASA-CASE-LAR-11069-1] c35 N75-12272

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[NASA-CASE-NSC-14640-1] c54 N76-14804

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[NASA-CASE-LAR-11973-1] c35 N78-27384

CCD correlated quadruple sampling processor

[NASA-CASE-NPO-14426-1] c33 N79-17134

Fluid sample collection and distribution system --- qualitative analysis of aqueous samples from several points

[NASA-CASE-NSC-16841-1] c34 N79-24285

SANDWICH STRUCTURES

Sandwich panel structure for removing heat from shield between hot and cold areas

[NASA-CASE-XLA-00349] c33 N70-37979

Particle detector for measuring micrometeoroid velocity in space

[NASA-CASE-XLA-00495] c14 N70-41332

Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids

[NASA-CASE-XLE-01246] c14 N71-10797

Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft

[NASA-CASE-XLA-03492] c15 N71-22713

Punch and die device for forming convolution series in thin gage metal hemispheres

[NASA-CASE-XNP-05297] c15 N71-23811

Composite sandwich lattice structure

[NASA-CASE-LAR-11898-1] c24 N78-10214

Low density bismaleimide-carbon microballoon composites

[NASA-CASE-ARC-11040-1] c24 N79-16915

Superplastically formed diffusion bonded metallic structure

[NASA-CASE-PRC-11026-1] c39 N79-25424

Multilayer thermal protection system

[NASA-CASE-LAR-12620-1] c24 N80-12117

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Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide

[NASA-CASE-GSC-11577-1] c37 N75-15992

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide

[NASA-CASE-GSC-11577-3] c24 N79-25143

SATELLITE ANTENNAS

Monopole antenna system for maximum omnidirectional efficiency for use on satellites

[NASA-CASE-XLA-00414] c07 N70-38200

Development of antenna system for spin stabilized communication satellite for simultaneous reception and transmission of data

[NASA-CASE-IGS-02607] c31 N71-23009

SATELLITE ATTITUDE CONTROL

Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude

[NASA-CASE-XNP-00438] c21 N70-35089

Attitude control system for spacecraft based on conversion of incident solar radiation on movable control surfaces into mechanical torques

[NASA-CASE-XNP-02982] c31 N70-41855

Design and development of satellite despersion device

[NASA-CASE-XNP-08523] c31 N71-20396

Utilization of momentum devices for forming attitude control and damping system for spacecraft

[NASA-CASE-XLA-02551] c21 N71-21708

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control

[NASA-CASE-GSC-10555-1] c21 N71-27324

Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion

[NASA-CASE-HQN-10439] c21 N72-21624

Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage

[NASA-CASE-NPO-11481] c21 N73-13644

Combination automatic-starting electrical plasma torch and gas shutoff valve --- for satellite attitude control

[NASA-CASE-XLE-10717] c37 N75-29426

Attitude control system

[NASA-CASE-NFS-22787-1] c15 N77-10113

Rim inertial measuring system --- to measure angular rates and linear accelerations

[NASA-CASE-LAR-12052-1] c04 N80-18019

SATELLITE CONTROL

Stabilization system for gravity-oriented satellites using single damper rod

[NASA-CASE-XAC-01591] c31 N71-17729

SATELLITE DESIGN

Inflation system for balloon type satellites

[NASA-CASE-IGS-03351] c31 N71-16081

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Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
Economical satellite aided vehicle avoidance
system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

SATELLITE NETWORKS

Satellite network synchronization system with
multiple access to multiplex repeater
[NASA-CASE-GSC-10390-1] c07 N72-11149

SATELLITE ORBITS

Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-HQN-00936] c31 N71-29050

SATELLITE ORIENTATION

Sensing method and device for determining
orientation of space vehicle or satellite by
using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297

Spin phase synchronization of cartwheel
satellite in polar orbit
[NASA-CASE-XGS-05579] c31 N71-15676

Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-HQN-00936] c31 N71-29050

Analog spatial maneuver computer with three
output angles for obtaining desired spatial
attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172

SATELLITE PERTURBATION

Flexible turnstile antenna system for reducing
nutation in spin-oriented satellites
[NASA-CASE-XMP-00442] c31 N71-10747

SATELLITE POWER TRANSMISSION (TO EARTH)

Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c33 N80-18287

SATELLITE ROTATION

Optical scanner mounted on rotating support
structure with method of compensating for
image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485

Stretch Yo-Yo mechanism for reducing initial
spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40016

Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-HQN-00936] c31 N71-29050

SATELLITE SOLAR POWER STATIONS

Solar power satellite system
[NASA-CASE-HQN-10949-1] c44 N81-16530

SATELLITE TELEVISION

Adaptive signal generating system and logic
circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374

SATELLITE TRACKING

Design and development of tracking receiver for
tracking satellites and receiving radio signal
transmissions under adverse noise conditions
[NASA-CASE-XGS-08679] c10 N71-21473

Simultaneous acquisition of tracking data from
two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854

Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

SATELLITE TRANSMISSION

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transmission and recovery data system --- for
satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195

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Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
--- for use with cameras mounted in satellites
[NASA-CASE-GSC-11560-1] c33 N74-20861

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Real-time multiple-look synthetic aperture radar
processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278

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Saturable magnetic core and signal detection for
indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747

SAWTOOTH WAVEFORMS

Linear sawtooth voltage wave generator with
transistor timing circuit having capacitor and
zener diode feedback loops

[NASA-CASE-XMS-01315]

c09 N70-41675

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Electronic and mechanical scanning control
system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460

Electronic background suppression field scanning
sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980

Electron beam scanning system for improved image
definition and reduced power requirements for
video signal transmission

[NASA-CASE-ERC-10552] c09 N71-12539
Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082

Monopulse scanning network for scanning
volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804

Scan oscilloscope for mapping surface
sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172

Ultrasonic scanner for radial and flat panels
[NASA-CASE-MFS-20335-1] c35 N74-10415

Apparatus for scanning the surface of a
cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009

Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

Electronically scanned pressure sensor module
with in SITU calibration capability
[NASA-CASE-LAR-12230-1] c35 N79-14347

Scannable beam forming interferometer antenna
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SPACE SUITS

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Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-XNP-00911] c08 N70-41961

Design and development of tracking receiver for tracking satellites and receiving radio signal transmissions under adverse noise conditions
[NASA-CASE-XGS-08679] c10 N71-21473

Microwave omnidirectional antenna for use on spacecraft
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[NASA-CASE-GSC-11924-1] c33 N76-27472
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[NASA-CASE-XMS-01620] c23 N71-15673
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[NASA-CASE-INP-00920] c15 N71-15906
- Omnidirectional anisotropic molecular trap, used with vacuum pump to simulate space environments for testing spacecraft components
[NASA-CASE-XGS-00783] c30 N71-17788
- Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space
[NASA-CASE-XLA-02050] c31 N71-22968
- Development and characteristics of docking structure and apparatus for spacecraft docking
[NASA-CASE-INP-05941] c31 N71-23912
- Design and development of release mechanism for spacecraft components, releasable despin weights, and extensible gravity booms
[NASA-CASE-XGS-08718] c15 N71-24600
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[NASA-CASE-MSC-13047-1] c31 N71-25434
- Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
[NASA-CASE-NPO-10556] c14 N71-27185
- Development of solid state polymer coating for obtaining thermal balance in spacecraft components
[NASA-CASE-XLA-01745] c33 N71-28903
- Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft
[NASA-CASE-MSC-12372-1] c31 N72-25842
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[NASA-CASE-NFS-20922-1] c18 N74-22136
- Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft
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- Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system
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- High temperature penetrator assembly with bayonet plug and ramp-activated lock
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[NASA-CASE-XLA-00204] c32 N70-36536
- Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924
- Stage separation system for spinning vehicles and payloads
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- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
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- Method of making a composite sandwich lattice structure
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- Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
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[NASA-CASE-INP-00294] c21 N70-36938
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[NASA-CASE-XLA-00281] c21 N70-36943
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[NASA-CASE-INP-01307] c21 N70-41856
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[NASA-CASE-INP-03914] c21 N71-10771
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[NASA-CASE-XLA-05464] c21 N71-14132
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- Large amplitude, linear inertial reference system of vibrating string type for spacecraft reference plane
[NASA-CASE-XAC-03107] c23 N71-16098
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[NASA-CASE-INP-02923] c28 N71-23081
- Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
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[NASA-CASE-GSC-10640-1] c28 N72-18766
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[NASA-CASE-MSC-13397-1] c21 N72-25595
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[NASA-CASE-MSC-12049] c31 N71-16080
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- [NASA-CASE-XMP-05941] c31 N71-23912
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- [NASA-CASE-XMP-05941] c31 N71-23912
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- [NASA-CASE-XMP-01667] c15 N71-17647
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- [NASA-CASE-XMS-04312] c07 N71-22984
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- [NASA-CASE-MFS-11132] c15 N71-17649
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- [NASA-CASE-GSC-10188-1] c23 N71-24725
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- [NASA-CASE-XMP-03853] c23 N71-21882
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[NASA-CASE-IGS-01593] c03 N70-35408
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[NASA-CASE-XLE-04250] c09 N71-20446
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[NASA-CASE-GSC-12273-1] c35 N80-21719
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[NASA-CASE-MSC-12049] c31 N71-16080
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[NASA-CASE-IGS-02554] c31 N71-21064
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[NASA-CASE-XLA-07728] c33 N71-22890
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SPARK PLUGS

High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925

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[NASA-CASE-XNP-04161] c14 N71-15599

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[NASA-CASE-XNP-02039] c15 N71-15871

Method and apparatus for high resolution power spectrum analysis
[NASA-CASE-NPO-10748] c08 N72-20177

Frequency tracked pulse technique for ultrasonic analysis
[NASA-CASE-LAR-12697-1] c32 N80-26571

Stark cell optoacoustic detection of constituent gases in sample
[NASA-CASE-NPO-14143-1] c25 N81-14015

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Real time reflectometer --- measurement of specular reflectance
[NASA-CASE-MFS-23118-1] c35 N77-31465

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Speech analyzer
[NASA-CASE-GSC-11898-1] c32 N77-30309

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System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-XNP-06892] c09 N71-24805

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- Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244
- Two speed drive system --- mechanical device for changing speed on rotating vehicle wheel
[NASA-CASE-MFS-20645-1] c37 N74-23070
- Low speed phaselock speed control system --- for brushless dc motor
[NASA-CASE-GSC-11127-1] c09 N75-24758
- Speed control device for a heavy duty shaft --- solar sails for spacecraft propulsion
[NASA-CASE-NPO-14170-1] c37 N81-15364
- SPEED REGULATORS**
Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-MFS-14610] c09 N71-28686
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Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621
- Plastic sphere for radar tracking and calibration
[NASA-CASE-XLA-11154] c07 N72-21117
- Method and apparatus for producing concentric hollow spheres
[NASA-CASE-NPO-14596-1] c31 N79-24197
- SPHERICAL SHELLS**
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542
- Development of mechanical device for measuring distance of point within sphere from surface of sphere
[NASA-CASE-XLA-06683] c14 N72-28436
- SPHERICAL TANKS**
Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
- SPHERICAL WAVES**
Electrical device for developing converging spherical shock waves
[NASA-CASE-MFS-20890] c14 N72-22439
- SPHYGMOGRAPHY**
A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839
- SPIKE NOZZLES**
Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes
[NASA-CASE-XGS-01143] c31 N71-15647
- SPIKE POTENTIALS**
Elimination of current spikes in buck power converters
[NASA-CASE-NPO-14505-1] c33 N81-19393
- SPIN DYNAMICS**
Nutation damper for use on spinning body
[NASA-CASE-GSC-11205-1] c15 N73-25513
- Stabilization of Be₂(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c72 N79-13826
- SPIN REDUCTION**
Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-IGS-02401] c14 N69-27485
- Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
- Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
[NASA-CASE-IGS-00619] c30 N70-40016
- Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
- Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XHF-00442] c31 N71-10747
- SPIN STABILIZATION**
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[NASA-CASE-XLA-01989] c21 N70-34295
- Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943
- Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-IGS-03431] c21 N71-15642
- Spin phase synchronization of cartwheel satellite in polar orbit
[NASA-CASE-IGS-05579] c31 N71-15676
- High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
- Passive dual spin misalignment compensators --- gyro stabilized device
[NASA-CASE-GSC-11479-1] c35 N74-28097
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- Active nutation controller
[NASA-CASE-GSC-12273-1] c35 N80-21719
- Thrust augmented spin recovery device
[NASA-CASE-LAR-11970-2] c08 N81-19130
- SPINDLES**
Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423
- SPINE**
Spine immobilization method and apparatus --- rigid bladder
[NASA-CASE-ARC-11167-1] c52 N79-30921
- SPINNERS**
An improved head for high speed spinner having a vacuum chuck --- holding silicon chips for etching
[NASA-CASE-NPO-15227-1] c37 N80-26661
- SPIRAL ANTENNAS**
Complementary cross-slot phased array antenna
[NASA-CASE-MSC-18532-1] c32 N80-29543
- SPIRAL WRAPPING**
Adjustable spiral wire winding device
[NASA-CASE-XMS-02383] c15 N71-15918
- Continuous self-locking spiral wound seal --- for maintaining pressure between chambers in cryogenic wind tunnels
[NASA-CASE-LAR-12315-1] c37 N80-16339
- Modified spiral wound retaining ring
[NASA-CASE-LAR-12361-1] c37 N81-12422
- SPIRALS (CONCENTRATORS)**
Spiral groove seal --- for hydraulic rotating shaft
[NASA-CASE-LEW-10326-3] c37 N74-10474
- SPIROMETERS**
Compact bellows spirometer for high speed and high altitude space travel
[NASA-CASE-XAR-01547] c05 N69-21473
- SPLINES**
Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536
- SPLINTS**
Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMF-06589] c05 N71-23159
- SPOILERS**
A hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands
[NASA-CASE-LAR-12412-1] c05 N80-11065
- SPORES**
Lyophilized spore dispenser
[NASA-CASE-LAR-10544-1] c37 N74-13178
- SPOT WELDS**
Controlled arc spot welding method
[NASA-CASE-XMF-00392] c15 N70-34814
- Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-MFS-13046] c07 N71-19433
- SPRAY CHARACTERISTICS**
Controlled overspray spray nozzle
[NASA-CASE-MFS-25139-1] c34 N80-20528
- SPRAY NOZZLES**
Rocket injector head
[NASA-CASE-XMF-04592-1] c20 N79-21125
- Controlled overspray spray nozzle
[NASA-CASE-MFS-25139-1] c34 N80-20528
- Fire extinguishing apparatus having a slidable mass for a penetrator nozzle --- for penetrating aircraft and shuttle orbiter skin
[NASA-CASE-KSC-11064-1] c31 N81-14137
- SPRAYED COATINGS**
Plasma spraying gun for forming diffusion bonded

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metal or ceramic coatings on substrates
 [NASA-CASE-XLB-01604-2] c15 N71-15610
 Production and application of sprayable fiber
 reinforced ablation material
 [NASA-CASE-XLA-04251] c18 N71-26100
 Metal plating process employing spraying of
 metallic powder/peening particle mixture
 [NASA-CASE-GSC-11163-1] c15 N73-32360
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 process
 [NASA-CASE-MPS-23506-1] c24 N78-24290
 Spray coating apparatus having a rotatable
 workpiece holder
 [NASA-CASE-ARC-11110-1] c37 N78-32434
 Controlled overspray spray nozzle
 [NASA-CASE-MPS-25139-1] c34 N80-20528

SPRAYERS

External device for liquid spray cooling of gas
 turbine blades
 [NASA-CASE-XLB-00037] c28 N70-33372
 Adhesive spray process for attaching biomedical
 skin electrodes
 [NASA-CASE-XPR-07658-1] c05 N71-26293
 Apparatus for liquid spray cooling of turbine
 blades
 [NASA-CASE-XLB-00027] c33 N71-29152
 Closed loop spray cooling apparatus --- for
 particle accelerator targets
 [NASA-CASE-LEW-11981-1] c31 N78-17237
 Spray coating apparatus having a rotatable
 workpiece holder
 [NASA-CASE-ARC-11110-1] c37 N78-32434

SPRAYING

Aircraft wheel spray drag alleviator for dual
 tandem landing gear
 [NASA-CASE-XLA-01583] c02 N70-36825
 Closed loop spray cooling apparatus
 [NASA-CASE-LEW-11981-2] c34 N79-20336

SPREADING

Tool attachment for spreading or moving away
 loose elements from terminal posts during
 winding of filamentary elements
 [NASA-CASE-XMP-02107] c15 N71-10809

SPRINGS (ELASTIC)

Belleville spring assembly with elastic guides
 having low hysteresis
 [NASA-CASE-XNP-09452] c15 N69-27504
 Multiple Belleville spring assembly with even
 load distribution
 [NASA-CASE-XNP-00840] c15 N70-38225
 Switching mechanism with energy stored in coil
 spring
 [NASA-CASE-XGS-00473] c03 N70-38713
 Load cell protection device using spring-loaded
 breakaway mechanism
 [NASA-CASE-XMS-06782] c32 N71-15974
 Vibration isolation system, using coaxial
 helical compression springs
 [NASA-CASE-NPO-11012] c15 N72-11391
 Spring operated accelerator and constant force
 spring mechanism therefor
 [NASA-CASE-ARC-10898-1] c35 N77-18417
 Natural turbulence electrical power generator
 --- using wave action or random motion
 [NASA-CASE-LAR-11551-1] c44 N80-29834

SPUTTERING

Deposition method for epitaxial beta SiC films
 having high degree of crystallographic
 perfection
 [NASA-CASE-ERC-10120] c26 N69-33482
 Development of procedure for producing thin
 transparent films of zinc oxide on transparent
 refractory substrate
 [NASA-CASE-FRC-10019] c15 N73-12487
 Technique and equipment for sputtering using
 apertured electrode and pulsed substrate bias
 [NASA-CASE-LEW-10920-1] c17 N73-24569
 Sputtering holes with ion beamlets
 [NASA-CASE-LEW-11646-1] c20 N74-31269
 Multitarget sequential sputtering apparatus
 [NASA-CASE-NPO-13345-1] c37 N75-19684
 Method of cold welding using ion beam technology
 [NASA-CASE-LEW-12982-1] c37 N81-19455

SQUARE WAVES

High speed phase detector design indicating
 phase relationship between two square wave
 input signals
 [NASA-CASE-XNP-01306-2] c09 N71-24596

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SQUARES (MATHEMATICS)

Apparatus for computing square roots
 [NASA-CASE-XGS-04768] c08 N71-19437

SQUIBS

Contamination free separation nut eliminating
 combustion products from ambient surroundings
 generated by squib firing
 [NASA-CASE-XGS-01971] c15 N71-15922

STABILITY AUGMENTATION

A velocity vector control system augmented with
 direct lift control --- stability augmentation
 using manual control
 [NASA-CASE-LAR-12268-1] c08 N79-20136

STABILITY TESTS

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 of a setup for making reflection type holograms
 [NASA-CASE-MPS-21455-1] c35 N74-15146

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Electro-optical stabilization of calibrated
 light source
 [NASA-CASE-MSC-12293-1] c14 N72-27411
 System for controlling torque buildup in
 suspension of gondola connected to balloon by
 parachute shroud lines
 [NASA-CASE-GSC-11077-1] c02 N73-13008
 Development of aerodynamic control system to
 control flutter over large range of
 oscillatory frequencies using stability
 augmentation techniques
 [NASA-CASE-LAR-10682-1] c02 N73-26004
 Radiation hardening of MOS devices by boron ---
 for stabilizing gate threshold potential
 [NASA-CASE-GSC-11425-2] c76 N75-25730
 Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386
 A pitch attitude stabilization system utilizing
 engine pressure ratio feedback signals
 [NASA-CASE-LAR-12562-1] c08 N79-20135

STABILIZED PLATFORMS

Hydraulic drive mechanism for leveling isolation
 platforms
 [NASA-CASE-XMS-03252] c15 N71-10658
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 drift performance of a gimbal platform system
 [NASA-CASE-MPS-23551-1] c04 N76-26175
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 [NASA-CASE-ARC-10981-1] c37 N78-27425

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 [NASA-CASE-XMP-08523] c31 N71-20396

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Solid propellant stabilizer containing
 nitroguanidine
 [NASA-CASE-NPO-12000] c27 N72-25699

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Assembly for opening flight capsule stabilizing
 and decelerating flaps with reference to
 capsule recovery
 [NASA-CASE-XNP-00641] c31 N70-36410
 Mechanical stabilization system for VTOL aircraft
 [NASA-CASE-XLA-06339] c02 N71-13422
 Attitude stabilizer for nonguided missile or
 vehicle with respect to trajectory
 [NASA-CASE-ARC-10134] c30 N72-17873
 Inflatable stabilizing system for use on life
 raft to reduce rocking and preclude capsizing
 [NASA-CASE-MSC-12393-1] c02 N73-26006
 Externally supported internally stabilized
 flexible duct joint
 [NASA-CASE-MPS-19194-1] c37 N76-14460

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 zero drift characteristics of electronic
 amplifier
 [NASA-CASE-XMS-05562-1] c09 N69-39986

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 solenoid-controlled valve
 [NASA-CASE-MPS-21675-1] c25 N74-33378

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Stage separation using remote control release of
 joint with explosive insert
 [NASA-CASE-XLA-02854] c15 N69-27490
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 indication and stage initiation
 [NASA-CASE-XLA-00791] c03 N70-39930
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 [NASA-CASE-XLA-01441] c15 N70-41679

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- Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
- Payload/spent rocket engine case separation system
[NASA-CASE-XLA-05369] c31 N71-15687
- Separation mechanism for use between stages of multistage rocket vehicles
[NASA-CASE-XLA-00188] c15 N71-22874
- Development of remotely controlled shaped charge for lateral displacement of rocket stages after separation
[NASA-CASE-XLA-04804] c31 N71-23008
- Electrical circuit selection device for simulating stage separation of flight vehicle
[NASA-CASE-IXS-04631] c10 N71-23663
- Frangible connecting link suitable for rocket stage separation
[NASA-CASE-HSC-11849-1] c15 N72-22488
- STAGNATION PRESSURE**
- Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-IXR-02007] c12 N71-24692
- Stagnation pressure probe --- for measuring pressure of supersonic gas streams
[NASA-CASE-LAB-11139-1] c35 N74-32878
- STAGNATION TEMPERATURE**
- Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLB-00266] c14 N70-34156
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- Automated single-slide staining device
[NASA-CASE-LAB-11649-1] c51 N77-27677
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- Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
- Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-MFS-20767-1] c38 N74-15130
- Method of forming a wick for a heat pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515
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[NASA-CASE-LEW-12619-1] c24 N77-19171
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[NASA-CASE-MFS-23518-2] c44 N77-31611
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- Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-MFS-23845-1] c33 N81-17348
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- Method and apparatus for shaping and enhancing acoustical levitation forces
[NASA-CASE-MFS-25050-1] c71 N81-15767
- STAR TRACKERS**
- Star sensor system for roll attitude control of spacecraft
[NASA-CASE-XNP-01307] c21 N70-41856
- Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-XGS-01159] c21 N71-10678
- Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771
- Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
- Relay controlled voltage switching unit for scanning circuitry of star tracker
[NASA-CASE-NPO-11253] c09 N72-17157
- Method for producing reticles for use in outer space
[NASA-CASE-GSC-11188-2] c21 N73-19630
- Production method of star tracking reticles for transmitting in visible and near ultraviolet regions
[NASA-CASE-GSC-11188-1] c14 N73-32320
- Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008
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[NASA-CASE-GSC-11569-1] c89 N74-30886
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- Resonant waveguide stark cell --- using microwave spectrometers
[NASA-CASE-LAB-11352-1] c33 N75-26245
- Stark-effect modulation of CO2 laser with NR2D
[NASA-CASE-NPO-11945-1] c36 N76-18427
- Stark effect spectrophone for continuous absorption spectra monitoring
[NASA-CASE-NPO-15102-1] c33 N80-25538
- Stark cell optoacoustic detection of constituent gases in sample
[NASA-CASE-NPO-14143-1] c25 N81-14015
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[NASA-CASE-XNP-01058] c09 N71-12540
- Motor run-up system --- power lines
[NASA-CASE-NPO-13374-1] c33 N75-19524
- STARTING**
- Portable device for use in starting air-start-units for aircraft and having cable lead testing capability
[NASA-CASE-FRC-10113-1] c33 N80-26599
- STATIC FRICTION**
- Kinetic and static friction force measurement between magnetic tape and magnetic head surfaces
[NASA-CASE-XNP-08680] c14 N71-22995
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[NASA-CASE-GSC-11893-1] c35 N76-31489
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- Describing static inverter with single or multiple phase output
[NASA-CASE-XNP-00663] c08 N71-18752
- Development and characteristics of oscillating static inverter
[NASA-CASE-IGS-05289] c09 N71-19470
- STATIC LOADS**
- Measuring shear-creep compliance of solid and liquid materials used in spacecraft components
[NASA-CASE-XLB-01481] c14 N71-10781
- Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-XMS-04545] c15 N71-22878
- STATIC PRESSURE**
- Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
- Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
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[NASA-CASE-LAR-11552-1] c35 N76-14429
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[NASA-CASE-LAR-12269-1] c35 N80-18358
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- Method of stationkeeping for lenticular gravity gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969
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- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-MFS-20642] c14 N72-21407
- STATOR BLADES**
- Stator rotor tools
[NASA-CASE-HSC-16000-1] c37 N78-24544
- STATORS**
- Nickel base alloy --- for gas turbine engine stator vanes
[NASA-CASE-LEW-12270-1] c26 N77-32280
- Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323
- Liquid metal slip ring --- aerospace environments
[NASA-CASE-LEW-12277-3] c33 N80-18300
- Natural turbulence electrical power generator --- using wave action or random motion
[NASA-CASE-LAR-11551-1] c44 N80-29834
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- Steady state thermal radiometers
[NASA-CASE-MFS-21108-1] c34 N74-27861

STEAM TURBINES

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STEAM TURBINES

Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104

STEELS

Zinc dust formulation for abrasion resistant
steel coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581
Moving body velocity arresting line ---
elongating steel cable
[NASA-CASE-LAR-12372-1] c37 N80-18399

STEERABLE ANTENNAS

Apparatus for generating microwave signals at
progressively related phase angles for driving
antenna array
[NASA-CASE-ERC-10046] c10 N71-18722
Satellite radio communication system with remote
steerable antenna
[NASA-CASE-XNP-02389] c07 N71-28900
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860
Phased array antenna control
[NASA-CASE-MSC-14939-1] c32 N79-11264

STEERING

Steerable solid propellant rocket motor adapted
to effect payload orientation as multistage
rocket stage or reduce velocity as retrorocket
[NASA-CASE-XNP-00234] c28 N70-38645

STELLAR LUMINOSITY

Development of star intensity measuring system
which minimizes effects of outside interference
[NASA-CASE-XNP-06510] c14 N71-23797

STELLAR SPECTRA

Development of star intensity measuring system
which minimizes effects of outside interference
[NASA-CASE-XNP-06510] c14 N71-23797

STENCIL PROCESSES

Method for making patterns for resin matrix
composites
[NASA-CASE-ARC-11246-1] c24 N80-22410

STEREOPHOTOGRAPHY

Stereo photomicrography system with stereo
microscope for viewing specimen at various
magnifications
[NASA-CASE-LAR-10176-1] c14 N72-20380

STEREOSCOPIC VISION

Stereoscopic television system, including
projecting pair of binocular images
[NASA-CASE-ARC-10160-1] c23 N72-27728

STERILIZATION

Using ethylene oxide in preparation of
sterilized solid rocket propellants and
encapsulating materials
[NASA-CASE-XNP-01749] c27 N70-41897
Ethylene oxide sterilization and encapsulating
process for sterile preservation of
instruments and solid propellants
[NASA-CASE-XNP-09763] c14 N71-20461
Environmentally controlled suit for working in
sterile chamber
[NASA-CASE-LAR-10076-1] c05 N73-20137
Protein sterilization of firefly luciferase
without denaturation
[NASA-CASE-GSC-10225-1] c06 N73-27086
Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761
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[NASA-CASE-NPO-14237-1] c44 N80-20808

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Reliability of electrical connectors after heat
sterilization
[NASA-CASE-NPO-10694] c09 N72-20200

STIFFENING

Spine immobilization method and apparatus ---
rigid bladder
[NASA-CASE-ARC-11167-1] c52 N79-30921

STIFFNESS

Modified face seal for positive film stiffness
[NASA-CASE-LEW-12989-1] c37 N80-12414

STIMULATED EMISSION

Repetitively pulsed wavelength selective carbon
dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24632

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Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590
Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431
Power control for hot gas engines
[NASA-CASE-NPO-14220-1] c37 N81-14318

Phase-angle controller for Stirling engines
[NASA-CASE-NPO-14388-1] c37 N81-17432
Solar energy receiver for a Stirling engine
[NASA-CASE-NPO-14619-1] c44 N81-17518

STIRRING

Design of mechanical device for stirring several
test tubes simultaneously
[NASA-CASE-XAC-06956] c15 N71-21177

STORAGE

Design and development of fluid sample collector
[NASA-CASE-XNS-06767-1] c14 N71-20435
Sodium storage and injection system
[NASA-CASE-NPO-14384-1] c37 N80-10494

STORAGE BATTERIES

Leak resistant bonded elastomeric seal for
secondary electrochemical cells
[NASA-CASE-IGS-02631] c03 N71-23006
Automatically charging battery of electric
storage cells
[NASA-CASE-XNP-04758] c03 N71-24605
Elimination of two step voltage discharge
property of silver zinc batteries by using
divalent silver oxide capacity of cell to
charge anodes to monovalent silver state
[NASA-CASE-IGS-01674] c03 N71-29129
Electric storage battery with high impact
resistance
[NASA-CASE-NPO-11021] c03 N72-20032
Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641
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[NASA-CASE-NPO-13530-1] c25 N81-17187

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Solar-heated fluidized bed gasification system
[NASA-CASE-NPO-15071-1] c44 N80-24747

Molten salt pyrolysis of latex --- synthetic hydrocarbon fuel production using the Guayule shrub
[NASA-CASE-NPO-14315-1] c27 N81-17261

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Process permitting application of synthetic resin coating to irregular-shaped objects at ambient temperature
[NASA-CASE-NXP-06508] c18 N69-39895

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[NASA-CASE-ABC-11321-1] c27 N80-31551

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[NASA-CASE-ARC-11114-1] c51 N81-14605

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[NASA-CASE-MPS-23513-1] c74 N79-11665

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Tape recorder designed for low power consumption and resistance to operational failure under

high stress conditions
[NASA-CASE-XGS-08259] c14 N71-23698

Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-MSC-12531-1] c35 N75-30504

Apparatus for sensor failure detection and correction in a gas turbine engine control system
[NASA-CASE-LEW-12907-2] c07 N81-19115

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Analog to digital converter analyzing system
[NASA-CASE-NPO-10560] c08 N72-22166

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Design of magnetohydrodynamic induction machine with end poles which produce compensating magnetic fields
[NASA-CASE-NXP-07481] c25 N69-21929

Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039

Solar battery with interconnecting means for plural cells
[NASA-CASE-NXP-06506] c03 N71-11050

Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190

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[NASA-CASE-NPO-10539] c07 N71-11285

Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894

Alarm system design for monitoring one or more relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417

Wide range analog data compression system
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Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439

Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440

Design and operation of high speed binary to decimal conversion system
[NASA-CASE-XGS-01230] c08 N71-19544

Sputter proof evaporant source design for use in vacuum deposition of solid thin films on substrates
[NASA-CASE-NXP-06065] c15 N71-20395

Method and apparatus for fabrication of heat insulating and ablative reentry structure
[NASA-CASE-XMS-02009] c33 N71-20834

Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

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[NASA-CASE-XLA-01731] c32 N71-21045

Magnetically opened diaphragm design with camera shutter and expansion tube applications
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[NASA-CASE-NXP-03212] c15 N71-22721

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[NASA-CASE-NXP-01747] c15 N71-23024

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Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
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Sealed electrochemical cell with flexible casing for varying electrolyte level in cell
[NASA-CASE-IGS-01513] c03 N71-23336

Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-IGS-03230] c14 N71-23401

Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790

Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597

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[NASA-CASE-XLE-08569-2] c03 N71-24681

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[NASA-CASE-XGS-01654] c31 N71-24750

Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840

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[NASA-CASE-XNP-09771] c09 N71-24841

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Noninterruptable digital counter circuit design with display device for pulse frequency modulation
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Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MFS-20395] c15 N71-24903

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MFS-20385] c09 N71-24904

Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975

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[NASA-CASE-MFS-20658-1] c14 N73-30386

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TEMPERATURE CONTROL

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TEMPERATURE CONTROL

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Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730
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Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514
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Method of making a rocket nozzle
[NASA-CASE-XMF-06884-1] c20 N79-21123
Wind tunnel supplementary Mach number minimum section insert
[NASA-CASE-LAR-12532-1] c09 N80-22369
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Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374
Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081
Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736
Method and apparatus for rapid thrust increases in a turbofan engine
[NASA-CASE-XEW-12971-1] c07 N80-18039
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[NASA-CASE-LAR-11970-2] c08 N81-19130
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[NASA-CASE-XPR-09479] c14 N69-27503
Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-XMF-00580] c11 N70-35383
Large area-ratio nozzles for rocket motor thrust chambers
[NASA-CASE-XLE-00145] c28 N70-36606

Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659
Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736
Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NPO-10046] c28 N72-17843
Continuous gas flow control by fluidic proportional thruster system
[NASA-CASE-ARC-10106-1] c28 N72-22769
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[NASA-CASE-XEW-10770-1] c28 N72-22770
Thermal flux transfer system for maintaining thrust chamber of operative reaction motor at given temperatures
[NASA-CASE-NPO-12070-1] c28 N73-32606
Heat exchanger --- rocket combustion chambers and cooling systems
[NASA-CASE-XEW-12252-1] c34 N79-13288
Heat exchanger and method of making --- bonding rocket chambers with a porous metal matrix
[NASA-CASE-XEW-12441-1] c34 N79-13289
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[NASA-CASE-XNP-05975] c15 N69-23185
Solid propellant rocket vehicle thrust control method and apparatus
[NASA-CASE-XNP-00217] c28 N70-38181
Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-XNP-06926] c28 N71-22983
Low mass ionizing device for use in electric thrust spacecraft engines
[NASA-CASE-XNP-01954] c28 N71-28850
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[NASA-CASE-GSC-10640-1] c28 N72-18766
Multi-purpose wind tunnel reaction control model block
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[NASA-CASE-XNP-05964-1] c20 N79-21124
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Dynamometer measuring microforce thrust produced by ion engine
[NASA-CASE-XLE-00702] c14 N70-40203
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[NASA-CASE-XLE-05260] c14 N71-20429
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[NASA-CASE-XGS-02319] c14 N71-22965
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[NASA-CASE-GSC-10710-1] c28 N71-27094
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[NASA-CASE-LEW-10374-1] c28 N73-13773
- System for imposing directional stability on a rocket-propelled vehicle
[NASA-CASE-MFS-21311-1] c20 N76-21275
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[NASA-CASE-MSC-14182-1] c27 N76-14264
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[NASA-CASE-MSC-16366-1] c24 N79-23142
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[NASA-CASE-MSC-18741-1] c16 N81-16110
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Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-XGS-01983] c10 N70-41964
- TIME DISCRIMINATION**
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[NASA-CASE-XGS-00381] c09 N70-34819
- TIME DIVISION MULTIPLEXING**
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[NASA-CASE-XGS-05918] c07 N69-39974
- Time division multiplexer with magnetic latching relays
[NASA-CASE-XNP-00431] c09 N70-38998
- Data processor having multiple sections activated at different times by selective power coupling to sections
[NASA-CASE-XGS-04767] c08 N71-12494
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[NASA-CASE-XNP-08832] c08 N71-12506
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[NASA-CASE-GSC-10373-1] c07 N71-19773
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[NASA-CASE-GSC-10131-1] c07 N71-24624
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[NASA-CASE-XNP-01383] c09 N71-10659
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[NASA-CASE-XNP-01501] c21 N70-41930
- Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
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[NASA-CASE-NPO-11203] c10 N72-20224
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[NASA-CASE-GSC-12075-1] c32 N77-31350
- Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
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[NASA-CASE-GSC-12228-1] c33 N79-10338
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[NASA-CASE-XLA-01987] c23 N71-23976
- TIME OF FLIGHT SPECTROMETERS**
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[NASA-CASE-XNP-01056] c14 N71-23041
- TIME SERIES ANALYSIS**
Device for performing statistical time-series analysis of complex electrical signal waveforms
[NASA-CASE-MSC-12428-1] c10 N73-25240
- TIME SHARING**
Integrated time shared instrumentation display for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507
- TIME SIGNALS**
Monitoring system for signal amplitude ranges over predetermined time interval
[NASA-CASE-XMS-04061-1] c09 N69-39885
- Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099
- Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals
[NASA-CASE-NPO-10143] c10 N71-26326
- Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519
- Precise RF timing signal distribution to remote stations --- fiber optics
[NASA-CASE-NPO-14749-1] c32 N81-14186
- TIMING DEVICES**
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[NASA-CASE-XNP-03744] c10 N71-20448
- Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099
- Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- High speed photo-optical time recorder for indicating time at exposure of each frame of high speed movie camera film
[NASA-CASE-KSC-10294] c14 N72-18411
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Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles
[NASA-CASE-XLA-01926] c14 N71-15620
- Resilient wheel design with woven wire tire and abrasive treads for lunar surface vehicles
[NASA-CASE-MFS-13929] c15 N71-27091
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Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
- Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737
- System for and method of freezing biological tissue
[NASA-CASE-GSC-12173-1] c51 N79-10694
- Coupling apparatus for ultrasonic medical diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751
- Apparatus and method of inserting a microelectrode in body tissue or the like using vibration means
[NASA-CASE-NPO-13910-1] c52 N79-27836

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Multifunctional transducer
[NASA-CASE-NPO-14329-1] c52 N81-20703

TITANATES

Vacuum preparation of zinc titanate pigment resistant to loss of reflective properties
[NASA-CASE-NPS-13532] c18 N72-17532

TITANIUM

Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-NPS-07369] c15 N71-20443

Weld-bonded titanium structures
[NASA-CASE-LAR-11549-1] c37 N77-11397

Method of mitigating titanium impurities effects in p-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N80-24741

TITANIUM ALLOYS

Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393

Chemical spot tests for identification of titanium and titanium alloys used in aerospace vehicles
[NASA-CASE-LAR-10539-1] c17 N73-12547

TITANIUM CARBIDES

Improved refractory coatings and method of producing the same
[NASA-CASE-LEW-13169-1] c26 N80-14232

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Improved refractory coatings --- sputtered coatings on substrates that form stable nitrides
[NASA-CASE-LEW-23169-2] c26 N81-16209

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Method of preparing zinc orthotitanate pigment
[NASA-CASE-NPS-23345-1] c27 N77-30237

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Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-INP-02278] c15 N71-28951

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System for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c31 N80-32584

TOOLS

Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-INP-02107] c15 N71-10809

Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571

Hand tool for forming dimples and nipples on end portion of tubes
[NASA-CASE-XMS-06876] c15 N71-21536

Tool for mounting and removing studs with adhesive coated head portion
[NASA-CASE-NPS-20299] c15 N72-11392

Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material
[NASA-CASE-NPS-21485-1] c37 N74-25968

Stator rotor tools
[NASA-CASE-HSC-16000-1] c37 N78-24544

Computer circuit card puller
[NASA-CASE-FBC-11042-1] c37 N80-20589

Open ended ratchet type tubing cutter
[NASA-CASE-HSC-18538-1] c37 N80-22703

TOOTH DISEASES

Process for preparing calcium phosphate salts for tooth repair
[NASA-CASE-BRC-10338] c04 N72-33072

TOPOGRAPHY

Method for observing the features characterizing the surface of a land mass
[NASA-CASE-FBC-11013-1] c43 N81-17499

TORCHES

Computer controlled apparatus for maintaining welding torch angle and velocity during seam tracking
[NASA-CASE-INP-03287] c15 N71-15607

Development of electric welding torch with casing on one end to form inert gas shield
[NASA-CASE-INP-02330] c15 N71-23798

Computerized system for translating a torch head
[NASA-CASE-NPS-23620-1] c37 N79-10421

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TOROIDS

Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
[NASA-CASE-XGS-01881] c09 N70-40123

Toroidal cell and battery --- energy storage for orbital space applications or power cells for electric vehicles
[NASA-CASE-LEW-12918-1] c44 N80-33857

TORQUE

Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744

Coupling arrangement for isolating torque loads from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N72-22482

High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383

Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827

Magnetic field control --- electromechanical torquing devices
[NASA-CASE-NPS-23828-1] c33 N80-17359

Pressure suit joint analyzer
[NASA-CASE-ABC-11314-1] c54 N80-30043

TORQUE MOTORS

Low speed phaselock speed control system --- for brushless dc motor
[NASA-CASE-GSC-11127-1] c09 N75-24758

TORQUEMETERS

Remote-reading torquemeter for use where high horsepower are transmitted at high rotative speeds
[NASA-CASE-XLE-00503] c14 N70-34818

Torque meter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field
[NASA-CASE-XGS-01013] c14 N71-23725

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Restraint torso for increased mobility and reduced physiological effects while wearing pressurized suits
[NASA-CASE-HSC-12397-1] c05 N72-25119

Spacesuit torso closure
[NASA-CASE-ABC-11100-1] c54 N78-31736

TOUCH

Mechanically operated hand which can depress trigger using touch control device
[NASA-CASE-NPS-20413] c15 N72-21463

Measuring method for cutaneous perception using instrument with elongated tubular housing
[NASA-CASE-HSC-13609-1] c05 N72-25122

Prosthetic limb with tactile sensing device
[NASA-CASE-NPS-16570-1] c05 N73-32013

TOWERS

Aerial capsule emergency separation device using jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343

TOXICITY AND SAFETY HAZARD

Apparatus for remote handling of materials --- mixing or analyzing dangerous chemicals
[NASA-CASE-LAR-10634-1] c37 N74-18123

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System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study
[NASA-CASE-XAC-05333] c11 N71-22875

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Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701

Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-INP-04262-2] c17 N71-26773

Electric discharge for treatment of trace contaminants
[NASA-CASE-ABC-10975-1] c33 N79-15245

TRACE ELEMENTS

Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-BRC-10014] c14 N71-28863

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[NASA-CASE-NPO-13063-1] c25 N76-18245

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[NASA-CASE-ABC-10760-1] c25 N76-22323

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- Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210
- TRACKING (POSITION)**
Sensor consisting of photocells mounted on
pyramidal base for improved pointing
accuracy of planetary trackers
[NASA-CASE-XBP-04180] c07 N69-39736
Telespectrograph for analyzing upper atmosphere
by tracking bodies reentering atmosphere at
high velocities
[NASA-CASE-XLA-03273] c14 N71-18699
Laser beam projector for continuous, precise
alignment between target, laser generator, and
astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
Mount for continuously orienting a collector
dish in a system adapted to perform both
diurnal and seasonal solar tracking
[NASA-CASE-MFS-23267-1] c35 N77-20401
System and method for tracking a signal source
--- employing feedback control
[NASA-CASE-HQN-10880-1] c17 N78-17140
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[NASA-CASE-NPO-13921-1] c44 N79-14526
Solar tracking system --- with pointing control
circuits
[NASA-CASE-MFS-23999-1] c44 N79-28667
- TRACKING FILTERS**
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signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543
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detection for binary signal tracking loops
[NASA-CASE-MSC-16461-1] c33 N79-11313
PN lock indicator for dithered PN code tracking
loop
[NASA-CASE-NPO-14435-1] c33 N79-18224
- TRACKING RADAR**
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system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
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[NASA-CASE-XNP-02723] c07 N70-41680
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radar antenna system
[NASA-CASE-XMS-09610] c07 N71-24625
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[NASA-CASE-MFS-20125] c16 N72-13437
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Optical monitor panel consisting of translucent
screen with test or meter information
projected onto it from rear for application in
control rooms of missile launching and
tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
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two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- TRAFFIC CONTROL**
Traffic survey system --- using optical scanners
[NASA-CASE-MFS-22631-1] c66 N76-19888
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Improved low-drag ground vehicle particularly
suited for use in safely transporting livestock
[NASA-CASE-FRC-11058-1] c85 N80-33312
- TRAILING-EDGE FLAPS**
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over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016
Variable area exhaust nozzle
[NASA-CASE-LWH-12378-1] c07 N79-14097
- TRAINING SIMULATORS**
Low and zero gravity simulator for astronaut
training
[NASA-CASE-MFS-10555] c11 N71-19494
Apparatus for training astronaut crews to
perform on simulated lunar surface under
conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474
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[NASA-CASE-LAR-10276-1] c09 N75-15662
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simulating gravitational forces on spacecraft
and displaying trajectories between Earth,
Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394
- Planetary atmospheric investigation using split
trajectory dual flyby mode
[NASA-CASE-XAC-08494] c30 N71-15990
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[NASA-CASE-XBP-01104] c28 N70-39931
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[NASA-CASE-XLA-00937] c31 N71-17691
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[NASA-CASE-ARC-10134] c30 N72-17873
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[NASA-CASE-XNP-09752] c14 N69-21541
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[NASA-CASE-XNP-09768] c09 N71-12516
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[NASA-CASE-XLA-03135] c32 N71-16428
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surface using X-Y plotter and traveling
transducer
[NASA-CASE-XLA-08646] c14 N71-17586
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micrometeorite transducers
[NASA-CASE-XGS-03304] c09 N71-22988
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calibrating displacement transducer for
measuring magnitude and frequency of
displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999
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[NASA-CASE-XLA-10322] c15 N72-17452
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[NASA-CASE-XLA-11189] c10 N72-20222
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gage bridge transducers
[NASA-CASE-FRC-10036] c09 N72-22200
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transducer
[NASA-CASE-LAR-10496-1] c14 N72-22437
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remotely determining number and movement of
enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160
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including differential pressure activating
device
[NASA-CASE-FRC-10060-1] c14 N73-27379
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[NASA-CASE-MUC-10107-1] c33 N74-17930
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amplitude via bias current control --- power
supply circuit for transducers
[NASA-CASE-MFS-21698-1] c33 N74-26732
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[NASA-CASE-GSC-11531-1] c52 N74-27566
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[NASA-CASE-ARC-10364-3] c33 N75-19520
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including a strain gage to measure forces in
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[NASA-CASE-NPO-13423-1] c33 N75-31329
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[NASA-CASE-LAR-11263-1] c35 N75-33369
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[NASA-CASE-NPO-13519-1] c33 N76-19338
Method and apparatus for nondestructive testing
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[NASA-CASE-NPO-12142-1] c38 N76-28563
Myocardium wall thickness transducer and
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[NASA-CASE-NPO-13644-1] c52 N76-29895
Apparatus and method for determining the
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[NASA-CASE-GSC-12147-1] c35 N77-20410
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of photoabsorptive metal or polymeric film
with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908
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[NASA-CASE-LAR-11999-1] c44 N80-18552
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Optical crystal temperature gauge with fiber optic connections --- cryogenic systems
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[NASA-CASE-NPO-14329-1] c52 N81-20703

TRANSFORMERS

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[NASA-CASE-XGS-01110] c07 N69-24334

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[NASA-CASE-XNP-01193] c10 N71-16057

Magnetic current regulator for saturable core transformer
[NASA-CASE-ERC-10075] c09 N71-24600

Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment
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Development and characteristics of electronically resettable fuse with saturable core current sensing transformer having two outside legs and center leg
[NASA-CASE-XGS-11177] c09 N71-27001

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[NASA-CASE-LAR-12016-1] c39 N78-15512

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[NASA-CASE-MFS-20400] c31 N71-18611

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Magnetic suspension and pointing system
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An improved suspension system for a wheel
rolling on a flat track --- bearings for
directional antennas
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Velocity limiting safety system for motor driven
research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895

VELOCITY MEASUREMENT

Particle detector for measuring micrometeoroid
velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332

Superconductive accelerometer employing variable
force principle to determine acceleration of
bodies
[NASA-CASE-XMF-01099] c14 N71-15969

Device for determining acceleration of gravity
by interferometric measurement of travel of
falling body
[NASA-CASE-XMF-05844] c14 N71-17587

Describing laser Doppler velocimeter for
measuring mean velocity and turbulence of
fluid flow
[NASA-CASE-MFS-20386] c21 N71-19212

Momentum-velocity analyzer for measuring minute
space particles
[NASA-CASE-XMS-04201] c14 N71-22990

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accelerometer based on color changes in liquid
crystalline material subjected to shear stresses
[NASA-CASE-ERC-10292] c14 N72-25410

Instrument for measuring magnitude and direction
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velocities of radiating particles
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[NASA-CASE-LAR-11729-1] c34 N79-12359

Air speed and attitude probe
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cryogenic liquid vapors through tubes with
porous plug
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Venting device for liquid propellant storage
tank using magnetic field to separate liquid
and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646

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[NASA-CASE-XKS-02582] c15 N71-21234

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Voltage feed through apparatus having reduced partial discharge
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[NASA-CASE-FRC-11014-1] c33 N79-27395

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[NASA-CASE-GSC-10735-1] c10 N71-26085

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[NASA-CASE-XMS-06497] c14 N71-26244

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[NASA-CASE-GSC-10891-1] c10 N71-26626

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[NASA-CASE-GSC-10376-1] c14 N71-27407

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[NASA-CASE-NPO-11031] c07 N71-33606

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[NASA-CASE-NPO-11253] c09 N72-17157

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[NASA-CASE-XMS-10984-1] c10 N71-19417

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[NASA-CASE-GSC-11095-1] c14 N72-10375

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[NASA-CASE-LAR-10545-1] c09 N72-21244

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[NASA-CASE-NPO-11307-1] c10 N73-30205

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- Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
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[NASA-CASE-ABC-10009-1] c15 N71-17822
- Millimeter wave antenna system for spacecraft use
[NASA-CASE-GSC-10949-1] c07 N71-28965

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- Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
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[NASA-CASE-MS-C-12428-1] c10 N73-25240
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- Planar array circularly polarized antenna with wall slot excitation
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- Microwave power divider for providing variable output power to output waveguide in fixed waveguide system
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- Tunable injection-locked pulsed CO₂ laser
[NASA-CASE-NPO-14984-1] c36 N81-15350

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- Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808

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[NASA-CASE-XNP-03134] c07 N71-10676
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[NASA-CASE-LAR-10513-1] c07 N72-25170

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[NASA-CASE-XLE-00011] c14 N70-41946
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[NASA-CASE-ERC-10248] c14 N72-17323
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[NASA-CASE-ABC-10637-1] c35 N75-16783
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- Integrated gas turbine engine-nacelle
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[NASA-CASE-LAR-11919-1] c07 N78-27121

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- Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
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- Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-NFS-21556-1] c35 N74-26945

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- Device for monitoring a change in mass in varying gravimetric environments
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[NASA-CASE-XMS-01492] c05 N70-41297

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[NASA-CASE-MPS-11132] c15 N71-17649

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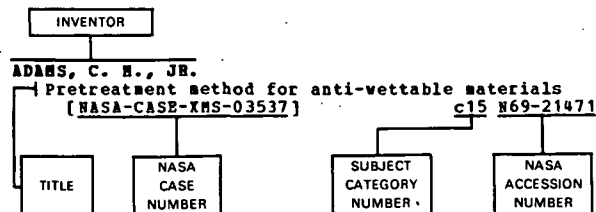
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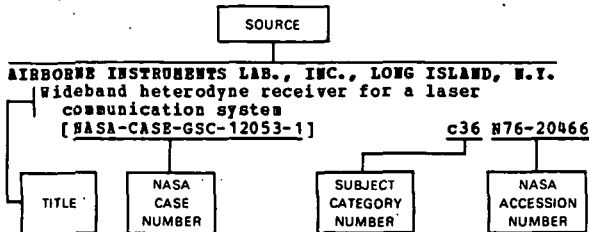
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Decision feedback loop for tracking a polyphase modulated carrier		Electric power generation system directory from laser power		
[NASA-CASE-NPO-13103-1]	c32 N74-20811	[NASA-CASE-NPO-13308-1]	c36 N75-30524	
Optically actuated two position mechanical mover		Subminiature insertable force transducer		
[NASA-CASE-NPO-13105-1]	c37 N74-21060	[NASA-CASE-NPO-13423-1]	c33 N75-31329	
Thin film gauge		Symmetrical odd-modulus frequency divider		
[NASA-CASE-NPO-10617-1]	c35 N74-22095	[NASA-CASE-NPO-13426-1]	c33 N75-31330	
High isolation RF signal selection switches		Stored charge transistor		
[NASA-CASE-NPO-13081-1]	c33 N74-22814	[NASA-CASE-NPO-11156-2]	c33 N75-31331	
Single reflector interference spectrometer and drive system therefor		Doped Josephson tunneling junction for use in a sensitive IR detector		
[NASA-CASE-NPO-11932-1]	c35 N74-23040	[NASA-CASE-NPO-13348-1]	c33 N75-31332	
Scanning nozzle plating system		Acoustically controlled distributed feedback laser		
[NASA-CASE-NPO-11758-1]	c31 N74-23065	[NASA-CASE-NPO-13175-1]	c36 N75-31427	
Rock sampling		Inert gas metallic vapor laser		
[NASA-CASE-NXP-10007-1]	c46 N74-23068	[NASA-CASE-NPO-13449-1]	c36 N75-32441	
Rock sampling		Helium refrigerator		
[NASA-CASE-NXP-09755]	c46 N74-23069	[NASA-CASE-NPO-13435-1]	c31 N76-14284	
Miniature multichannel biotelemetry system		Nonlinear nonsingular feedback shift registers		
[NASA-CASE-NPO-13065-1]	c52 N74-26625	[NASA-CASE-NPO-13451-1]	c33 N76-14373	
Dispensing targets for ion beam particle generators		Strain gage mounting assembly		
[NASA-CASE-NPO-13112-1]	c73 N74-26767	[NASA-CASE-NPO-13170-1]	c35 N76-14430	
Optically detonated explosive device		Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles		
[NASA-CASE-NPO-11743-1]	c28 N74-27425	[NASA-CASE-NPO-13756-1]	c35 N76-14434	
Coherent receiver employing nonlinear coherence detection for carrier tracking		Thermostatically controlled non-tracking type solar energy concentrator		
[NASA-CASE-NPO-11921-1]	c32 N74-30523	[NASA-CASE-NPO-13497-1]	c44 N76-14602	
Digital servo control of random sound test excitation		Multi-computer multiple data path hardware exchange system		
[NASA-CASE-NPO-11623-1]	c71 N74-31148	[NASA-CASE-NPO-13422-1]	c60 N76-14818	
Apparatus for forming drive belts		Cermet composition and method of fabrication		
[NASA-CASE-NPO-13205-1]	c31 N74-32917	[NASA-CASE-NPO-13120-1]	c27 N76-15311	
Tool for use in lifting pin supported objects		Dichroic plate		
[NASA-CASE-NPO-13157-1]	c37 N74-32918	[NASA-CASE-NPO-13506-1]	c35 N76-15435	
Preparing oxidizer coated metal fuel particles		Magnetometer using superconducting rotating body		
[NASA-CASE-NPO-11975-1]	c28 N74-33209	[NASA-CASE-NPO-13388-1]	c35 N76-16390	
Geneva mechanism		Scan converting video tape recorder		
[NASA-CASE-NPO-13281-1]	c37 N75-13266	[NASA-CASE-NPO-10166-2]	c35 N76-16391	
Method of producing a storage bulb for an atomic hydrogen maser		Hydrogen rich gas generator		
[NASA-CASE-NPO-13050-1]	c36 N75-15029	[NASA-CASE-NPO-13342-1]	c37 N76-16446	
Combined pressure regulator and shutoff valve		Automated system for identifying traces of organic chemical compounds in aqueous solutions		
[NASA-CASE-NPO-13201-1]	c37 N75-15050	[NASA-CASE-NPO-13063-1]	c25 N76-18245	
Simultaneous acquisition of tracking data from two stations		Analog to digital converter		
[NASA-CASE-NPO-13292-1]	c32 N75-15854	[NASA-CASE-NPO-13385-1]	c33 N76-18345	
Shock absorbing mount for electrical components		Sampler of gas borne particles		
[NASA-CASE-NPO-13253-1]	c37 N75-18573	[NASA-CASE-NPO-13396-1]	c35 N76-18401	

Stark-effect modulation of CO₂ laser with NH₂D
[NASA-CASE-NPO-11945-1] c36 N76-18427

Diffused waveguiding capillary tube with distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428

System for minimizing internal combustion engine pollution emission
[NASA-CASE-NPO-13402-1] c37 N76-18457

Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641

Hydrogen-rich gas generator
[NASA-CASE-NPO-13464-1] c44 N76-18642

Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643

Priority interrupt system
[NASA-CASE-NPO-13067-1] c60 N76-18800

Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338

Zero torque gear head wrench
[NASA-CASE-NPO-13059-1] c37 N76-20480

Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994

Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742

Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553

Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575

Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590

Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700

Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

Hydrogen rich gas generator
[NASA-CASE-NPO-13464-2] c44 N76-29704

Myocardium wall thickness transducer and measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895

Catheter tip force transducer for cardiovascular research
[NASA-CASE-NPO-13643-1] c52 N76-29896

Real time analysis of voiced sounds
[NASA-CASE-NPO-13465-1] c32 N76-31372

High resolution Fourier interferometer-spectrophotopolarimeter
[NASA-CASE-NPO-13604-1] c35 N76-31490

Reflected-wave maser
[NASA-CASE-NPO-13490-1] c36 N76-31512

Method of making hollow elastomeric bodies
[NASA-CASE-NPO-13535-1] c37 N76-31524

Solar cell grid patterns
[NASA-CASE-NPO-13087-2] c44 N76-31666

Furlable antenna
[NASA-CASE-NPO-13553-1] c33 N76-32457

Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071

Cryostat system for temperatures on the order of 2 deg K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229

The dc-to-dc converters employing staggered-phase power switches with two-loop control
[NASA-CASE-NPO-13512-1] c33 N77-10428

Ion and electron detector for use in an ICB spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492

Hydrogen-rich gas generator
[NASA-CASE-NPO-13560-1] c44 N77-10636

Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NPO-13545-1] c32 N77-12240

Computer interface system
[NASA-CASE-NPO-13428-1] c60 N77-12721

High temperature oxidation resistant cermet compositions
[NASA-CASE-NPO-13666-1] c27 N77-13217

Frequency discriminator and phase detector circuit
[NASA-CASE-NPO-11515-1] c33 N77-13315

Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406

Thermocouple installation
[NASA-CASE-NPO-13540-1] c35 N77-14409

Method and apparatus for background signal reduction in opto-acoustic absorption measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411

Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466

Nuclear thermionic converter
[NASA-CASE-NPO-13121-1] c73 N77-18891

Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289

Charge storage diode modulators and demodulators
[NASA-CASE-NPO-10189-1] c33 N77-21314

Compact, high intensity arc lamp with internal magnetic field producing means
[NASA-CASE-NPO-11510-1] c33 N77-21315

Depressurization of arc lamps
[NASA-CASE-NPO-10790-1] c33 N77-21316

Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

Cryogenic liquid sensor
[NASA-CASE-NPO-10619-1] c35 N77-21393

Uniform variable light source
[NASA-CASE-NPO-11429-1] c74 N77-21941

Arc control in compact arc lamps
[NASA-CASE-NPO-10870-1] c33 N77-22386

Hydraulic drain means for servo-systems
[NASA-CASE-NPO-10316-1] c37 N77-22479

Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480

Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

Distributed feedback acoustic surface wave oscillator
[NASA-CASE-NPO-13673-1] c71 N77-26919

Penetrometer
[NASA-CASE-NPO-11103-1] c35 N77-27367

Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236

Phase substitution of spare converter for a failed one of parallel phase staggered converters
[NASA-CASE-NPO-13812-1] c33 N77-30365

Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308

Combustion engine
[NASA-CASE-NPO-13671-1] c37 N77-31497

Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255

Charge-coupled device data processor for an airborne imaging radar system
[NASA-CASE-NPO-13587-1] c32 N77-32342

Direct reading inductance meter
[NASA-CASE-NPO-13792-1] c35 N77-32455

Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580

Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] c44 N77-32581

Solar energy collection system
[NASA-CASE-NPO-13810-1] c44 N77-32582

Three-dimensional tracking solar energy concentrator and method for making same
[NASA-CASE-NPO-13736-1] c44 N77-32583

Overload protection system for power inverter
[NASA-CASE-NPO-13872-1] c33 N78-10377

Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429

Machine for use in monitoring fatigue life for a plurality of elastomeric specimens
[NASA-CASE-NPO-13731-1] c39 N78-10493

Portable linear-focused solar thermal energy collecting system
[NASA-CASE-NPO-13734-1] c44 N78-10554

Acoustic energy shaping
[NASA-CASE-NPO-13862-1] c71 N78-10837

High voltage, high current Schottky barrier solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526

Durable antistatic coating for polymethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164

Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215

Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238

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[NASA-CASE-NPO-11150] c35 N78-17359

Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395

Automatic visual inspection system for microelectronics
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Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391

Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395

Independent gain and bandwidth control of a traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410

High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-1] c27 N78-15302

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

Underground mineral extraction
[NASA-CASE-NPO-14140-1] c31 N78-24387

Thin conformal antenna array for microwave power conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

Multistation refrigeration system
[NASA-CASE-NPO-13839-1] c31 N78-25256

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Polymeric electrolytic hygrometer
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Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431

Charge transfer reaction laser with preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402

RF beam center location method and apparatus for power transmission system
[NASA-CASE-NPO-13821-1] c44 N78-28594

Control for nuclear thermionic power source
[NASA-CASE-NPO-13114-2] c73 N78-28913

Magneto-optic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421

Nitramine propellants
[NASA-CASE-NPO-14103-1] c28 N78-31255

Reflex feed system for dual frequency antenna with frequency cutoff means
[NASA-CASE-NPO-14022-1] c32 N78-31321

Solar pond
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Non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N78-31526

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Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil
[NASA-CASE-NPO-08835-1] c27 N78-33228

Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526

Plural output optometric sample cell and analysis system
[NASA-CASE-NPO-10233-1] c74 N78-33913

Portable electrophoresis apparatus using minimum electrolyte
[NASA-CASE-NPO-13274-1] c25 N79-10163

Automatic communication signal monitoring system
[NASA-CASE-NPO-13941-1] c32 N79-10262

Surface roughness measuring system
[NASA-CASE-NPO-13862-1] c35 N79-10391

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[NASA-CASE-NPO-14014-1] c37 N79-10420

Dual membrane hollow fiber fuel cell and method of operating same
[NASA-CASE-NPO-13732-1] c44 N79-10513

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[NASA-CASE-NPO-13958-1] c25 N79-11151

Surfactant-assisted liquefaction of particulate carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152

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Space-charge-limited solid-state triode
[NASA-CASE-NPO-13064-1] c33 N79-11314

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[NASA-CASE-NPO-13828-1] c37 N79-11405

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[NASA-CASE-NPO-13918-1] c76 N79-11920

An improved suspension system for a wheel rolling on a flat track
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Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells
[NASA-CASE-NPO-14100-1] c44 N79-12541

Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694

Conical scan tracking system employing a large antenna
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[NASA-CASE-NPO-13993-1] c72 N79-13826

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Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

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[NASA-CASE-NPO-14311-1] c32 N79-14276

Real-time multiple-look synthetic aperture radar processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278

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Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526

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[NASA-CASE-NPO-13935-1] c52 N79-14751

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- Chemical vapor deposition reactor
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- High performance ammonium nitrate propellant
[NASA-CASE-NPO-14260-1] c28 N79-28342
- Biocontamination and particulate detection system
[NASA-CASE-NPO-13953-1] c35 N79-28527
- Baseband signal combiner for antenna array
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- Multi-channel rotating optical interface for data transmission
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- Optical gyroscope system
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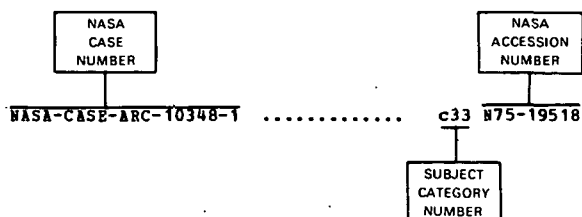
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US-PATENT-APPL-SN-304705	c32	N74-20810	US-PATENT-APPL-SN-330209	c15	N70-41646
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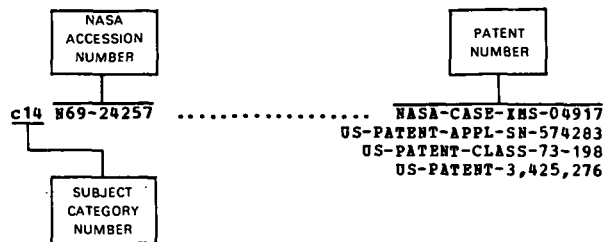
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